

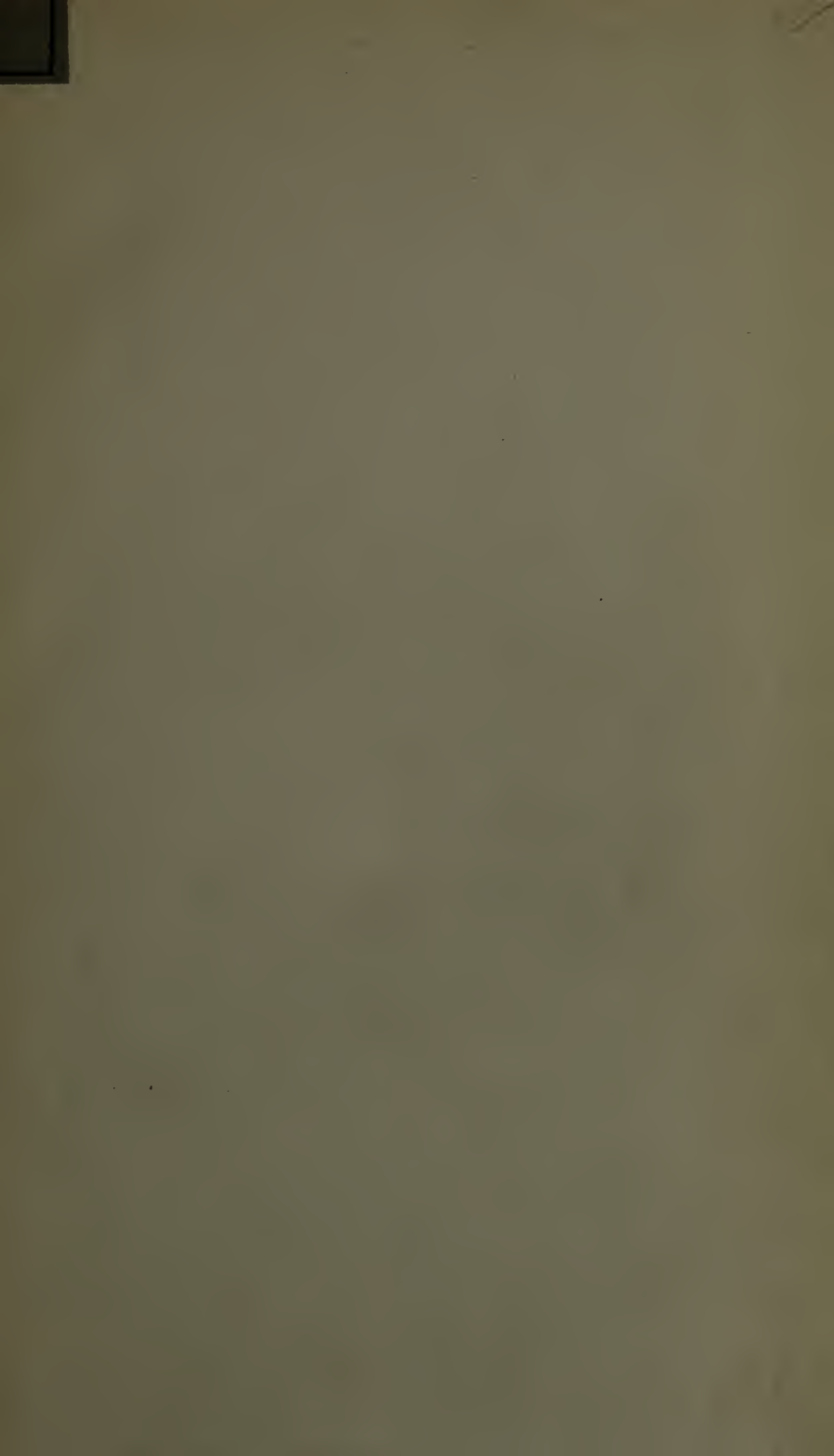


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Mass: Nautical school

Annual report

## HOUSE . . . . . No. 53.

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### Commonwealth of Massachusetts.

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OFFICE OF THE SECRETARY, BOSTON, Jan. 17, 1893.

Hon. WILLIAM E. BARRETT, *Speaker, House of Representatives.*

SIR:—I have the honor to transmit, for the use of the Legislature, the report of the Commissioners of the Massachusetts Nautical Training School.

Very respectfully,

WM. M. OLIN,  
*Secretary.*

MASSACHUSETTS NAUTICAL TRAINING SCHOOL,  
REPORT OF COMMISSIONERS.

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*To the Senate and House of Representatives of the Commonwealth of  
Massachusetts.*

The establishment of the Massachusetts Nautical Training School is an important step tending to the advancement of our merchant marine, as its aim is to commence at the foundation by furnishing highly educated (theoretically and practically) young American seamen. If we are to have vessels sailing under the American flag, it is essential to have competent men to command and man them, and this the Massachusetts Nautical Training School will endeavor to accomplish.

The Board of Commissioners, under sanction of the act of Congress passed in 1884, empowering the Secretary of the Navy to provide a vessel for such purposes, have made strenuous and constant efforts during the past year to accomplish this most desirable result, and were most fortunate in enlisting the hearty sympathy of the Navy Department in their behalf; and it is due to this co-operation that the State of Massachusetts has been awarded, in the United States steamship "Enterprise," a ship most admirably adapted for the purpose for which she has been assigned, and one which will compare favorably if not in some ways surpass English and French training ships.

The United States steamship "Enterprise" was formally accepted by the Governor and Council Nov. 9, 1892, and immediately sent to the Charlestown Navy Yard, where the repairs necessary to fit her for the use of the school are being pushed energetically.

The commissioners feel amply compensated by the delay

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in eventually obtaining a steamer; this being the only nautical training school possessing a steam vessel, all others being sailing vessels. Her graduates will thus be thoroughly drilled in handling sailing vessels, as well as being proficient in all knowledge demanded by a modern steam vessel; thus it will be possible to give them complete instruction in marine engineering.

The United States law under which the vessel is assigned reads as follows:—

That the Secretary of the Navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Mobile, New Orleans, Savannah, Baton Rouge, Galveston and Narragansett Bay, upon the condition that there shall be maintained at such port a school or branch of a school for the instruction of youths in navigation, seamanship, marine engineering and all matters pertaining to the proper construction, equipment and sailing of vessels or any branch thereof; and the President of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents or instructors in such schools: *provided*, that if such schools shall be discontinued or the good of the naval service shall require it, such vessels shall be immediately restored to the Secretary of the Navy, and the officers so detailed recalled; and *provided, further*, that no persons shall be sentenced to or received at such schools as a punishment or commutation of punishment for crime.

It is proposed to establish the standard of instruction so high that graduates will be fully competent to command or act as mates or engineers of all vessels sailing from our ports. The course of study embraces navigation, seamanship, and in fact all matters pertaining to the sailing of vessels.

The training school will exact of all candidates for admission severe restrictions as to their moral training, personal

habits, physical health, general intelligence and adaptability for a seafaring life.

It is in no sense a reformatory school, and this fact should be distinctly understood. It is expressly stated in the act of Congress that "no person shall be sentenced to or received at such school as a punishment for or a commutation of punishment for crime." The Board of Commissioners desire to emphasize this fact, and to impress upon all interested in this subject that their aim is to make the Massachusetts Nautical Training School one of high grade, and one that will maintain the high standard of Massachusetts schools. Its instructors will be selected from among the corps of naval officers who possess in an eminent degree the art of teaching the details of their profession, — a staff of officers thoroughly equipped for their duties and fully understanding the requirements of such a school.

Lieut.-Com. J. F. Merry, U.S.N., is in command of the "Enterprise," and is superintendent of the school. He was master of a merchant vessel before the war, when he entered the navy as a volunteer officer, and was one of the few who passed into the regular service at the close of the war. Lieut. A. F. Osborne, U.S.N., executive officer, will have charge of the department of seamanship, maritime law and marine insurance. Lieut. Chas. A. Foster, U.S.N., will have charge of the department of astronomy, navigation and surveying. The third will have charge of the department of mathematics. The engineer officer is Past Assistant Engineer G. R. Salisbury, U.S.N., who has charge of the department of marine engineering and mechanical drawing. The surgeon is Past Assistant Surgeon J. W. Baker, U.S.N., who has charge of the department of hygiene, English and foreign languages.

The course of study will be three years, and each year will be divided into two terms: one of six winter months, when the ship is moored at Boston, and instruction is given in the class rooms; and another of six summer months, when the vessel is cruising at sea. There will be three classes. The examinations will take place the latter part of February, and they will be of the same general character required to enter the high schools of the State. Cadets



must be at least sixteen years of age, and be physically sound. No cadet will be accepted without the written consent of his parent or guardian, and he must present also a certificate of good conduct from his last teacher and from his clergyman.

It is expected that the high standard of attainments and of character required will enable the school to be established with such a reputation that it will justify the expenditure made by the State, and graduate young men who will be competent to be the junior deck and engine room officers of our coastwise steamship lines, and that it will be one more step towards building up the merchant marine, officered and manned by Americans.

The "Enterprise" is a bark-rigged screw steamer, with double topsail yards, of 1,375 tons displacement, and 790 indicated horse-power. Her armament consists of four thirty-two-pounders and two three-inch breech-loading rifles, and she carries six boats. There are three decks, — spar deck, main deck and berth deck. The spar deck is very roomy, with all necessary space for exercising with sails and spars and working ship at sea. The main deck contains the quarters for officers and space for class rooms and lathe room, the latter having a complete outfit for working in iron or wood. The berth has a forward and after compartment, which will be for quarters and mess, and will be ventilated by powerful exhaust fans driven by steam. The ship has a steam capstan and steam steering gear, and will contain all the latest appliances for technical and hygienic purposes.

The complement will be a captain and five officers, three mates, boatswain, carpenter, sailmaker, three machinists, one hundred and twenty-five cadets and thirty seamen and firemen.

The value of the training-school idea has been amply demonstrated by foreign nations, and its practical test in this country has shown such beneficial results in the two schools already established as to warrant the extension of the school ship ultimately to all of our principal coastwise ports. The Nautical Training School of New York has been established now eighteen years, the sloop-of-war "St. Mary's" having been assigned by the Navy Department for that purpose in

1874, and its graduates are in demand by all our merchant vessels. The school ships "Saratoga" of Philadelphia and "St. Mary's" of New York have proved the necessity of such schools.

Massachusetts now enters the field, and will endeavor to advance and perfect the training ship, and render it, as a school of nautical instruction, worthy to claim equal rank with the best public schools of the State.

The young men of Massachusetts whose instincts lead them to a seafaring life have been deprived of the opportunity to obtain an intelligent nautical education, and it was to supply this void in our public-school system that first induced the agitation of the project for the establishment of the Massachusetts Nautical Training School.

Although the act establishing the Massachusetts Nautical Training School passed two years ago, it carried the proviso that nothing should be done until the vessel had been accepted; and, as it was very late this fall when the Navy Department assigned the United States steamship "Enterprise" that duty, it was consequently impossible to advance the work of fitting out the ship for the purpose of the school as rapidly as desired; and the large amount of detail requisite for such an undertaking will probably consume some sixty days' more time before the ship is ready to receive the cadets.

The Navy Department, on sending the ship, agreed to expend the amount of \$19,991.99, which is all they were allowed by law to expend in the department of construction. They agreed to expend this on condition that the State pay the additional amount of \$8,582.68, which was considered by the Board of Survey to be necessary to put the ship in proper condition. The Navy Department has also agreed to turn over all the complete outfit of sails, rigging, etc., belonging to the equipment department, and to do the work necessary in that department, on condition that the State agree to pay a certain proportion for labor and materials, amounting to \$4,081.06. Accordingly the commissioners have entered into a contract with the Navy Department for these amounts.

Certain parts of the work could not be done properly



until the work on the ship had advanced further, and the working materials necessary for the additional work have been contracted for, making a total of bills paid amounting to \$13,132.25, and of contracts amounting to \$26,727.44,—leaving an unexpended balance of \$39,367.75 of the appropriations. This balance will be necessary to complete the outfit of the ship without trenching upon the appropriation for carrying on the school during the current year.

The commissioners did not feel that the work could be done economically if they had attempted to expend the entire appropriation of last year. Therefore they request that the balance of \$12,640.31 may be re-appropriated, in order to prevent any delay in the prosecution of the work.

The commissioners respectfully beg to submit the following statement of the expenditures in fitting out the school:—

	Dr.	Cr.
Amount appropriated, . . . . .		\$52,500 00
Furniture and stationery for office, . . . . .	\$420 30	
Rent, . . . . .	166 67	
Salaries, . . . . .	734 37	
P. O. box rent for six months, . . . . .	5 00	
Printing proposals and contracts, . . . . .	86 83	
Necessary furniture, including bed and table linen, cooking utensils and range, . . . . .	1,463 24	
Tools for manual training, . . . . .	687 00	
Books and nautical instruments, . . . . .	581 95	
Surgical instruments, . . . . .	393 16	
Crockery, etc., . . . . .	847 41	
Stores, . . . . .	1,291 72	
Medicines, . . . . .	440 57	
Stationery and outfit for school, . . . . .	1,418 45	
Lumber, spars, oil, paint, hardware, etc., . . . . .	2,041 16	
Lamps and clocks, . . . . .	253 48	
Pay roll for work on ship, . . . . .	1,730 00	
Pay roll, officers and men on board ship, . . . . .	500 53	
Blocks for rigging, . . . . .	70 40	
	<hr/>	13,132 25
Amount expended, . . . . .		\$39,367 75
Contracts as follows:—		
E. B. Vannevear & Co., plumbing, . . . . .	\$1,985 00	
Herreshoff Manufacturing Company, steam launch, . . . . .	3,750 00	
Davidson Ventilating Fan Company, . . . . .	1,120 00	
S. Thaxter & Son, books and instruments, . . . . .	524 50	

N. Boynton & Co., canvas, . . . . .	\$525 63
Geo. W. Rogers, hammocks, . . . . .	772 00
L. G. Burnham & Co., coal and wood, . . . . .	3,653 00
Sewall & Day Cordage Company, ropes, etc., . . . . .	758 27
C. O. Eaton, flags, etc., . . . . .	975 30
United States Navy Department, construction, . . . . .	8,582 68
United States Navy Department, equipment, . . . . .	4,081 06

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\$26,727 44

JOHN C. SOLEY.  
WM. H. LINCOLN.  
THOMAS B. FITZ.

HOUSE . . . . No. 227.

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Commonwealth of Massachusetts.

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Boston, Feb. 6, 1894.

Hon. GEORGE V. L. MEYER,

*Speaker House of Representatives.*

SIR:—I have the honor to transmit herewith, in compliance with the request of the Commissioners of the Massachusetts Nautical Training School, the report of said commission for the year 1893.

Very respectfully,

WM. M. OLIN,

*Secretary.*

## Commonwealth of Massachusetts.

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Boston, Jan. 15, 1894.

*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled:—*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit the report of the operations of the school for the year 1893.

The ship was in the dry dock at the navy yard until March 25th, having been commissioned late in the previous year by Commander J. F. Merry, U. S. N., with P. A. Engineer G. R. Salisbury, U. S. N., as chief engineer, and P. A. Surgeon J. W. Baker, U. S. N., as surgeon. Lieut. A. P. Osborn, U. S. N., reported January 7th and was detailed as executive officer and instructor in seamanship. Lieut. C. A. Foster, U. S. N., reported on January 9th and was detailed as navigator and instructor in navigation. Ensign W. G. Miller, U. S. N., reported March 13th, and was detailed as instructor in military studies and mathematics. While in dock, the ship was completely rebuilt and put in thorough condition for sea. The crew of the ship were employed in repairing and refitting sails and machinery.

The ship was undocked March 25th, coal and stores were taken in, sails bent, and on April 5th forty cadets were received on board and the course of instruction was commenced. On April 15th the cruise commenced. The ship was sent to Provincetown and to cruise in Massachusetts Bay. There were then in the school sixty cadets. On April 22d the ship was sent to New York, and was assigned a position in the naval review, returning to Boston on May 1st. On May 5th she sailed on another cruise, visiting different ports in the State, including Marblehead, Gloucester, Vineyard Haven and New Bedford, and thence to Gardner's Bay, Long Island, N. Y. At the different ports the ship was visited by

large numbers of people, and examinations were held for those desiring to join the school. The time at Gardner's Bay was devoted to exercises aloft and in the boats, and preparation for a foreign cruise.

On June 25th the ship took part in the ceremonies attending the unveiling of the statue of Admiral Farragut, and the cadets' battalion was landed and formed a part of the procession on that occasion.

On July 1st the *Enterprise* sailed for Southampton with ninety-two cadets on board, arriving there after a very good passage of twenty-four days, made almost entirely under sail. At Southampton the cadets were taken, by their instructors, on board the *Paris* and the *New York* of the American line for instructions, and were also instructed in the methods of docking at Southampton and London.

It was the intention of the commissioners that the ship should visit Havre to give instruction in the docking method in use at that port, but the commander exercised his discretion in not visiting that harbor, on account of the cholera restrictions, and proceeded to Lisbon, where she arrived on the 18th of August. The ship touched at Funchal, Madeira, on the 29th, and sailed for Las Palmas, in the Grand Canaries, which is an important coaling station. The ship left Las Palmas September 9th and arrived safely at Boston after a pleasant passage of thirty-one days.

The cruise was a very successful one, the route sailed insured pleasant weather which permitted the instruction in seamanship, navigation and engineering to go on almost uninterruptedly, and the cadets, with a few exceptions, were studious and well behaved. The cadets who were sufficiently advanced in mathematics were carried as far as possible in navigation, and at the end of the cruise the first class were able to find the latitude by meridian altitude of the sun and moon and longitude by time sights of sun and stars and to work out Azimuth observations, while nearly all could work dead reckoning and find the course and distance from the ship's position to any part of the world. The work of the ship was done almost entirely by the cadets, and only enough seamen were carried to act as instructors in the practical work and as leading men. Whenever the ship was under











# ANNUAL REPORT

OF

*Mass.*  
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COMMISSIONERS

OF

# MASSACHUSETTS NAUTICAL TRAINING SCHOOL.



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JANUARY 1, 1895.

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BOSTON :  
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,  
18 POST OFFICE SQUARE.

1895.

*C.*



# Commonwealth of Massachusetts.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit the report of the operations of the school for the year 1894.

During the winter months, from November, 1893, until May, 1894, the training ship "Enterprise" was berthed at Rowe's wharf, Boston, which, with the rooms of the adjoining yacht club house, was rented for that period for the use of the school.

The ship was stripped of her top hamper and the spar deck was housed over, thus increasing her comfort and her facilities for use as a school ship during the winter.

The roster showed an average of eighty-seven cadets attached to the school and receiving regular instruction during the winter term, and the results obtained were quite satisfactory. Those whose conduct had been satisfactory during the week were permitted to visit their parents, if they desired, from Saturday afternoon until Monday morning each week.

On April 15, 1894, at the conclusion of their winter term, the cadets were granted two weeks' leave of absence, and the crew commenced preparations for sending the ship to sea. When they returned, spars were sent aloft, sails bent, and on May 2 the ship went into the dry dock at the Charlestown navy yard for some needed repairs.

On May 14 the ship and the cadets were inspected by His Excellency the Governor, the Lieutenant-Governor and the

Honorable Council, and on the 15th of May she sailed on a practice cruise, which included visits to Marblehead, Gloucester, Provincetown, Edgartown and New Bedford. At all these ports the ship was inspected by a large number of interested people, and several candidates were presented for examination for entrance into the school.

On June 9 the "Enterprise" returned to Boston, was again inspected by the Governor, Lieutenant-Governor and Council on the 14th of June, and on June 19 she sailed on her summer cruise with one hundred and thirteen cadets on board. After an excellent passage, under sail, of twenty-one days, the "Enterprise" anchored at Falmouth, Eng., July 11. On the 12th of July she arrived at Havre, France. While at that port the cadets had a favorable opportunity of inspecting the docks and their system of operation, and four days' leave of absence was given those who desired to visit Paris.

Sailing from Havre July 21, the "Enterprise" reached Liverpool July 24. While there the cadets had every facility extended to them, through the courtesy of the public officials, for visiting and examining the great docking system of that port. They also by special invitation visited and inspected several of the large steamers and the large ship-building establishments of Liverpool. Mr. S. B. Cottrell, manager of the Overhead Railway Company, placed that service at the disposal of the officers and cadets of the "Enterprise." Mr. John Laird invited them to visit his shipyard, and to inspect the battle ship "Mars," of fourteen thousand tons, and other vessels building in his yard. A special collation was also served for them on board the R. M. S.S. "Campania," in the grand saloon of that ship. In fact, the attentions shown were very marked, and were of the most cordial character. The Liverpool "Journal of Commerce" devoted a full-column article to a description of the Massachusetts nautical training ship, giving unstinted praise to the school, the officers and the cadets.

H. B. M. training school ship "Conway" is stationed at Liverpool, and her commander, Capt. A. T. Miller, R. N., expressed deep regret that the "Enterprise" should have visited that port while his cadets were absent on their sum-

mer vacation, as he was thus prevented from extending courtesies to the Massachusetts school ship. Captain Miller has written to this commission, expressing a most favorable opinion of the school and of the gentlemanly demeanor of the cadets while in England.

After visiting Queenstown, the "Enterprise" sailed for Cadiz, arriving there August 21. On the 24th of August she sailed for Madeira, arriving at Funchal August 31, and sailing September 1 for Boston. As the trade-winds were light, and the ship was ordered to come home under sail, it was deemed advisable by the commanding officer to touch for one day, October 4, at Bermuda, for fresh provisions. The ship arrived in Boston harbor Oct. 10, 1894.

As a result of the four months' cruise, an opportunity was afforded the cadets of inspecting the great docking systems of England and France, and of familiarizing themselves with the English channel and the coasts of those countries, as well as giving them several months' practical experience of deep-water sailing and steaming.

The health of the officers, cadets and crew during the voyage was generally excellent.

The commissioners consider that the experience obtained on the summer cruise has been valuable to the cadets in the practice of their intended profession, and the time was, therefore, well spent. But it is also their belief that in future it will be advisable to devote the summer months to cruising in home waters, where other branches of seamanship can be practised frequently, such as boat-practice, getting under weigh, anchoring, mooring, making and taking in sail, reefing, steering and other practical work of the seaman.

Immediately after the return of the "Enterprise" the corps of cadets was landed as a battalion and marched to the State House, where they were reviewed by His Excellency Governor Greenhalge, who extended to them a cordial welcome. The next day four weeks' leave of absence was granted, and during that time the ship was moored at the Charlestown navy yard for the winter, permission having been obtained from the navy department. The upper deck was housed over for a school-room and for purposes of drill.

To enable the superintendent of the school to provide properly cooked food, the commissioners have had put on board the ship a very complete range of large capacity, with improved coffee urns and also a separate pastry and bread oven. A dietary has been adopted, which provides liberally for each meal in the week, giving plain but substantial food.

A code of discipline has also been adopted and put in force, which is expected to produce a satisfactory state of discipline in the school.

During the year the total number of applicants examined was 104. Of these, 54 failed in the mental examination, 21 were rejected physically, and 50 were admitted to the school. During the year 10 cadets have been dismissed for misconduct, 24 have been allowed to resign, and 19 have been withdrawn from the school by request of their parents or guardians. One cadet deserted, and 12 have been transferred to other vessels at their own request. The total number now on board is 90. A number of applications have been received and filed for the next examination, Jan. 15, 1895.

The Massachusetts Nautical Training School actually began its operations on April 5, 1893, when forty cadets were received on board, and the course of instruction commenced. It will thus be observed that at this date the school has only been in active operation twenty-one months, and as yet can only fairly be considered as in its experimental stage. The commissioners believe, however, that the generous expenditure of money by the State, and of earnest, intelligent labor on the part of the superintendent and the corps of instructors during the past two years have not been without fruit; and they are fully confirmed in their belief in the wisdom of this scheme for training and educating young men for service as junior officers and engineers in the mercantile marine of the United States, which it is so earnestly hoped may be speedily revived.

Although until next spring there can be no full two-year graduates of this school, twelve cadets have already obtained positions as third officers, apprentices, etc., in sea-going vessels, one of these "apprentices" having been promoted to third officer since he sailed from this port. Another



cadet, nineteen years old, who took the engineering course in this school, has obtained an important position in an electrical business, at a salary of \$1,000 per year. He was compelled to pass a competitive examination for the place, and passed it, as he said, readily, owing to the excellent instruction he had received on board the "Enterprise."

The commissioners believe that as this school progresses and becomes more widely known there will be a steadily increasing demand for its graduates from our ship and steamship owners, particularly as the postal subsidy bill requires all the officers and a percentage of the crews of the steamers carrying the United States mails to be citizens of the United States. In addition to this, such graduates as are too young to expect an officer's position on an ocean steamer will be admirably fitted to fill the positions of cadets or petty officers on these mail steamers, made mandatory under the new law, and can soon hope through their own merits to be promoted to the highest positions in the merchant service.

The Pacific Mail Steamship Company has taken into its employ all those who graduated from the nautical school in New York, at salaries of \$240 the first year, \$300 the second, \$360 the third, and to be regularly in line of promotion to the highest grades; and the United States and Brazil Line and J. E. Ward & Co.'s line are also applicants for the graduates. Arrangements have been made with the new American line of steamers in Philadelphia to receive competent graduates of engineering from this school for their new steamers.

As a result of the experience gained during the past two years, some changes have been made in the curriculum of the school, mainly in the direction of strengthening the English branches. The study of French and Spanish has been omitted, as it was not found that sufficient advance was made in these languages to warrant their continuance, unless much more time could be given to them than seemed judicious.

During the past year about five thousand dollars has been expended for equipment for the "Enterprise." While a ship necessarily requires each year a certain expenditure for repairs and for renewal of equipment, it is not believed,

unless an accident should occur, that so large a sum will be required for the renewal of equipment during the year 1895.

Abandoning the use of Rowe's wharf is in the line of economy, as there is no charge for wharfage at the navy yard. Yet, as casualties may happen at any time, the commissioners do not deem it wise to ask for any smaller appropriation for "current expenses" for 1895 than was appropriated for the year 1894.

In order to properly maintain the school, the commission ask for an appropriation for current expenses of the school of \$50,000 for 1895. They also ask for \$4,500 for office expenses for 1895, as against \$5,000 appropriated for 1894.

#### APPROPRIATIONS FOR 1894.

##### *Current Expenses.*

Appropriation, . . . . .	\$50,000
Expended, . . . . .	\$49,984 33
Balance, . . . . .	15 67
	<hr/>
	\$50,000

##### *Office Expenses.*

Appropriation, . . . . .	\$5,000
Expended, . . . . .	\$4,766 44
Balance, . . . . .	233 56
	<hr/>
	\$5,000

Respectfully submitted,

W. H. LINCOLN,  
JOHN C. ROSS,  
GEORGE E. BELKNAP, U.S.N.,  
*Commissioners.*

Boston, Jan. 1, 1895.







AMERICAN ENGRAVING CO. BOSTON

*Mass. N. S. Ship Enterprise.*

ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1896.

BOSTON :  
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,  
18 POST OFFICE SQUARE.  
1896.



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1895.

### WINTER TERM.

In accordance with a previous arrangement made with the Navy Department, the training ship "Enterprise" was docked at the Charlestown Navy Yard Oct. 12, 1894, where she remained until May 11, 1895. During October she was stripped of her top hamper, and the spar deck was housed over and fitted up with steam-heating pipes, thus giving excellent accommodations for study and recitation rooms. By the courtesy of Commodore Jos. N. Miller, U. S. Navy, Commandant of the Navy Yard, the use of suitable rooms on shore was granted for the classes in marine and mechanical drawing, and other facilities were extended to the school.

During the winter there was an average of eighty-four cadets on the roster of the school, receiving regular instruction. Cadets whose conduct had been satisfactory during the week were permitted to visit their parents, if they desired, from Saturday afternoon until Monday morning of each week, and the customary brief vacations were given at Thanksgiving and Christmas.

The practical work in seamanship and marine engineering was also continued during the winter months. The ship's sails, running and standing rigging, blocks, boats, etc., were thoroughly overhauled and put in good condition by the

cadets, and as the spring opened the ship was rigged and prepared for sea.

April 13, 1895, the first class of twenty cadets graduated, eight in seamanship and twelve in marine engineering, His Excellency the Governor honoring the occasion by his presence, and presenting the diplomas to the graduating class, with flattering remarks upon the efficiency of the institution.

After the usual vacation of two weeks, the "Enterprise" was hauled out from the Navy Yard May 11, 1895, and sailed on a short cruise to Marblehead, returning in time for the State inspection, made by His Excellency Gov. Frederic T. Greenhalge, His Honor Lieut.-Gov. Roger Wolcott, and six members of the Honorable Executive Council, accompanied by the Board of Commissioners. The ship steamed down the harbor and bay, and during the day the cadets were exercised in making and taking in sail, reefing and furling, and tacking ship, under direction of the cadet officers. While under steam the engines were handled entirely by the cadets of the engineering corps.

#### SUMMER CRUISE.

May 19, 1895, the "Enterprise," with eighty-three cadets on board, sailed on her summer cruise. The first port touched at was Punta Delgada on the island of San Miguel, of the Azores group, which she reached in sixteen days. Thereafter the ship visited the ports of Malaga, Spain; Gibraltar, Tangier, Funchal, Madeira; Santa Cruz, Tenerife; and Las Palmas, Grand Canary Island; sailing from the latter port for home July 27, and arriving at New London, Conn., Aug. 27, 1895.

Commander John F. Merry, U. S. Navy, says, in his report to the commissioners: "The cruise was a very successful one, and the cadets seemed to profit more by it than by any of the preceding summer cruises. The fine weather always encountered in the north-east trade winds affords the best opportunity for the study of navigation and nautical astronomy, and the cadets profited so much by their instruction that the first class became very proficient, being able to find the ship's position by almost all known methods by the sun, moon and stars. This superior opportunity gives the students of this school unusual advantages over most young



men who start out in life with a view of following the sea. While not under steam the engineer cadets, with the exception of one section, were kept on deck ; but, when steam was raised, all the engineer cadets were stationed by watches in the engine and fire rooms, and instructed in the different duties. Almost daily sail and spar drills were maintained, all the first class in turn taking charge of the deck, and performing the evolutions."

#### FALL INSPECTION.

Sept. 16, 1895, the commissioners made their official inspection of the school while the "Enterprise" was at Marblehead. The ship was got under way and the cadets were exercised in various branches of seamanship and engineering. The ship was carefully inspected in every department, and the showing was very satisfactory to the Board.

Oct. 4, 1895, by permission of the Navy Department, the "Enterprise" was moored at the Navy Yard, and on October 10 a second class of eighteen graduates received diplomas, eleven in seamanship and seven in engineering, the latter being all engaged at once by the American line of steamers.

As an evidence that there is an existing demand for the graduates of this school, it is a notable fact that forty-three cadets have already obtained positions in sailing vessels and steamers. As testimony to the appreciation of their qualification, the marine superintendent of the American line of steamers writes, "The boys from the United States steamer 'Enterprise' are the best material that comes to me." Several of the cadets have already obtained positions as mates, quartermasters and as fifth engineers on other large steamers of the Mallory and Plant lines.

Mr. L. G. Burnham of Boston, owner of a number of steamers in the coastwise trade, who has found places for several cadets in these vessels, says :—

"I believe the system of your school in educating cadet engineers furnishes the engineer's department in the merchants' service with a better grade of men than those who have graduated from the fire room of tow boats, which has been the source of supply for some time in this port."

## STATISTICS.

The statistics of the school for the past year are as follows : —

*Admissions during 1895.*

Total number cadets in school Jan. 1, 1895, . . . . .	85
applications received 1895, . . . . .	98
failing to appear for examination, . . . . .	8
applicants examined, . . . . .	90
	<hr/>
passed examinations, . . . . .	76
failed to pass (mentally and physically), . . . . .	8
failed to pass the mental examination, . . . . .	4
failed to pass physical examination, . . . . .	2
unable to qualify after passing examination, . . . . .	6
	<hr/>
admitted during 1895, . . . . .	70
readmitted during 1895, . . . . .	1
	<hr/>
total admitted to the school, on examination, and readmitted, 1895, . . . . .	71
Total number cadets connected with school, 1895, . . . . .	156

*Withdrawals during 1895.*

Total number graduated, . . . . .	38
withdrawn, . . . . .	11
honorably discharged, . . . . .	1
dismissed, . . . . .	4
dropped from roll without a discharge, . . . . .	1
deserted, . . . . .	1
	<hr/>
Total withdrawals, . . . . .	56
Total number cadets in the school, Jan. 1, 1896, . . . . .	100

The one hundred cadets now in the school are progressing steadily and satisfactorily in the knowledge of their adopted profession, while the discipline and *morale* of the corps are all that could be desired.

## PERSONNEL.

June 1, 1895, Mr. William H. Lincoln, chairman of the Board, who had been a commissioner of the school since it commenced operations, resigned, from the pressure of business interests. June 13, 1895, Robert B. Dixon, M.D., of Boston, was appointed by the governor in his place, and in the reorganization of the Board Rear-Admiral Geo. E. Belknap, U. S. N., was chosen chairman of the commission.



July 1, 1895, Prof. Albert Bushnell Hart, Ph.D., of Cambridge, was appointed a commissioner *vice* John C. Ross, commission expired.

Changes in the officers and instructors of the school during the year have been as follows : —

Jan. 17, 1895, Ensign W. G. Miller, U. S. N., was detached from the school; and on April 26, 1895, Ensign Wm. D. MacDougall, U. S. N., reported for duty in his place.

March 26, 1895, Lieut. Charles A. Foster, U. S. N., executive officer, retired from the school, from ill health, and he was shortly after placed on the retired list of the United States Navy; and on May 1, 1895, Lieut. A. P. Nazro, U. S. Navy, reported as executive officer.

On May 11, 1895, P. A. Surgeon John W. Baker, U. S. Navy, was detached from the "Enterprise;" and on May 19, 1895, P. A. Surgeon Frederick W. Olcott, U. S. Navy, reported for duty in his place.

Nov. 16, 1895, P. A. Engineer Geo. A. Salisbury, U. S. Navy, was detached from the "Enterprise," his three years' tour of duty having expired.

Nov. 30, 1895, the three years' tour of duty of Commander John F. Merry, U. S. Navy, superintendent of the school, expired; and he was relieved by Lieut.-Com. Joseph G. Eaton, U. S. Navy, who was ordered by the Navy Department to report to the commission for command of the United States steamer "Enterprise." Commander Merry has been with the school from its inception, and the commissioners believe that a very large share of its success is due to his untiring energy and conscientious attention to the many details of his responsible position. In parting with the superintendent the commission tendered to Commander Merry a letter expressing their high appreciation of his excellent service during the past three years.

#### ADMINISTRATION.

The experience of the Board has led to some changes in the administrative system, looking to greater economy and efficiency. All purchases are now made on requisitions approved by the Board, bids are invited for all important sup-

plies, and prices obtained before ordering smaller supplies. The fund arising from the clothing deposit is held by the superintendent subject to the control of the Board. New blanks have been prepared for applicants for admittance to the school, and they are required to give the names of persons to whom the secretary may direct letters of inquiry.

The Board has begun the purchase of a modest library for the use of the cadets, and has added to the curriculum two hours a week during the winter term on English authors and English composition. It has been the effort of the Board to encourage and sustain the desire of the officers and instructors to make the education furnished by the school thorough and practical.

In order to get the benefit of the experience of other schools of the same kind, the commission delegated one of their number to visit and report on the Nautical Training Schoolship "St. Mary's," supported by the city of New York, and the "Saratoga," supported jointly by the city of Philadelphia and the Commonwealth of Pennsylvania. The result was to satisfy the commission that the Massachusetts school is able to draw upon a better class of boys, boys better grounded in a common school education; that the "Enterprise" is not inferior to her sister ships in affording advantages for instruction in seamanship, while offering a double opportunity through the use of steam power; that the instruction in the winter months is much more searching and efficient than on either of the other ships; and that we are able to retain the boys for longer and more vigorous service before they leave the school. Suggestions as to improvements in details based on the practice of the other ships have been duly considered.

#### APPROPRIATIONS.

The commissioners believe their experience thus far warrants them in the assertion that a nautical school is as important in its way as any other State educational institution, and as fully deserving support and generous encouragement.

For the year 1894 the Legislature appropriated \$50,000, and a deficiency appropriation of \$3,904.33 was afterward

found necessary. The expenditure for the service of 1894 was, therefore, nearly \$54,000.

During the year 1895 the commissioners have made a persistent effort to keep the expenditures down, and have brought the total sum expended within \$45,500. They are thus able to return to the treasury an unexpended balance of \$4,600.88, but orders have been placed to the amount of about \$700.00 for this year's service, for which bills cannot be obtained in time for this report. There is no reason to expect that the expenditures of 1896 will be larger than those of the past year; but, to cover the contingencies of accident or unforeseen expenditures, the commissioners consider an appropriation of \$50,000—the same as for the current year—the smallest sum which can safely be asked for. The usual moderate appropriation of \$4,500 for office expenses will also be necessary.

The appropriations for the school for 1895, which are accounted for as follows, were :—

#### APPROPRIATIONS FOR 1895.

##### *Current Expenses.*

Appropriation, . . . . .	\$50,000 00
Expended, . . . . .	\$45,399 12
Balance, . . . . .	4,600 88
	<hr/>
	\$50,000 00

##### *Office Expenses.*

Appropriation, . . . . .	\$4,500 00
Expended, . . . . .	\$4,156 22
Balance, . . . . .	343 78
	<hr/>
	\$4,500 00

Respectfully submitted,

Rear Admiral GEO. E. BELKNAP, U.S.N.,  
*Chairman.*

ROBERT B. DIXON, M.D.,

ALBERT BUSHNELL HART, PH.D.,

*Board of Commissioners.*

# LEGAL AUTHORITY FOR THE SCHOOL.

## AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

### AN ACT to encourage the Establishment of Public Marine Schools.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided*, *further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402.]

### AN ACT to establish a Nautical Training School.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three



years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.

[*Approved June 11, 1891.*]

Vote of Executive Council upon acceptance by the State of Massachusetts : —

COMMONWEALTH OF MASSACHUSETTS,  
COUNCIL CHAMBER, BOSTON, NOV. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship Enterprise for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk.*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### *Establishment.*

Under the authority of the above acts, the Secretary of the Navy on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war Enterprise, as a vessel suitable for the purpose.

ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

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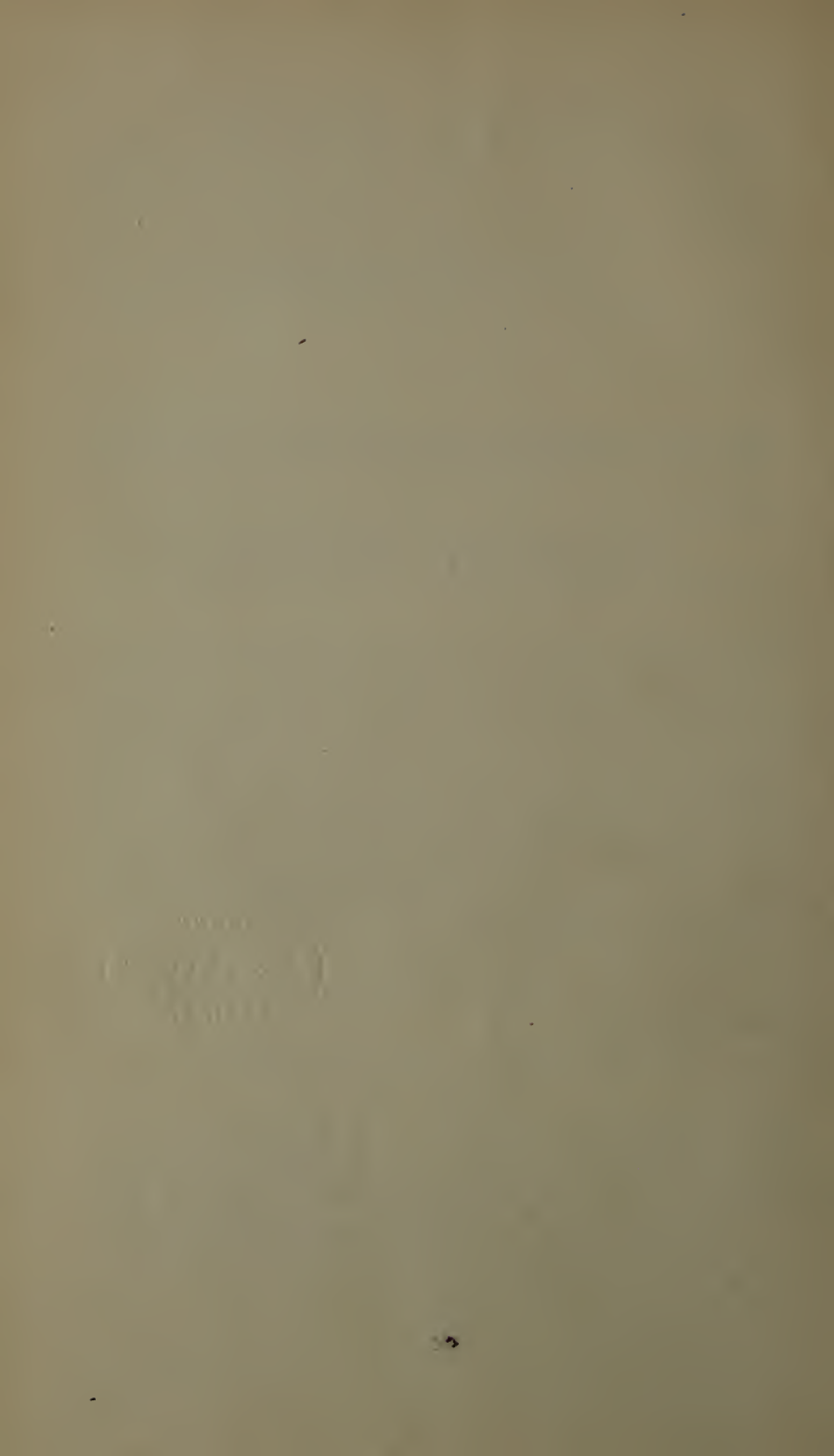
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# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1896.

### WINTER TERM.

Entirely satisfied by the experience of the two previous years that the Charlestown Navy Yard was far the most desirable as well as the most economical place for the training ship "Enterprise" during the winter months, application was made to the Navy Department, early in the autumn of 1895, for permission to moor the ship at the yard.

This request having been endorsed by the commandant, Commodore Joseph N. Miller, U. S. Navy, who in so doing took occasion to refer to the excellent deportment of the cadets of this school during the previous winter at the Navy Yard, it was duly granted, and the "Enterprise" was docked Oct. 4, 1895. This resulted in a direct saving of \$1,000, expended for wharfage in Boston during the winter of 1893-94. During the vacation the "Enterprise" was housed over, as usual, and the steam-heating apparatus was put in place, thus affording excellent study and recitation rooms on the spar deck.

For the winter of 1895-96 there was an average of 102 cadets on the roster of the school, as against 84 for the previous year. This marks the highest average number of cadets for a winter term that has ever been enrolled in the history of the school. The usual course of studies, which included English, mathematics, geography, navigation, engineering and mechanical drawing, was pursued with satisfactory results.

The practical work in seamanship and marine engineering was also actively continued, and the ship's rigging and sails were thoroughly overhauled. This work was done entirely by the cadets of the seamanship class, under the immediate supervision of the mates and sailmaker of the ship, the work being carried on in buildings on shore very courteously placed at the disposition of the school by the commandant of the Navy Yard. At the same time the engineering class was doing practical work in their department, at the forge and lathes supplied for that purpose by the school.

#### GRADUATES, 1896.

April 20, 1896, a class of 25 cadets graduated, as against 20 in the spring of 1895. Of these, 17 were in the seamanship class and 8 in the engineering class. The diplomas were presented by His Honor Roger Wolcott, Acting Governor, who expressed satisfaction with the appearance of the cadets and the evidences of the efficiency of the school. Inasmuch as the services of this entire graduating class of engineers was demanded, a full week before graduation, by the American line of steamers in New York, these young men were all on duty on board those steamers before the day of graduation, and could not, in most cases, receive their diplomas in person. The members of the seamanship class were also within a very few weeks all engaged in different vessels, several of them receiving wages of \$30 and \$35 per month, with their food.

In October, 1896, diplomas were granted to 9 more cadets who had completed their two-years course. Of these, 5 were in seamanship and 4 in engineering, and in December, 2 more diplomas were granted to cadets who had been previously transferred to active service in the mercantile marine.

## SUMMER CRUISE.

On May 12, at the expiration of the customary vacation of two weeks, the "Enterprise" hauled out from the Navy Yard and sailed for a brief cruise to Marblehead and Gloucester. Returning to Boston, the Acting Governor and the Executive Council were taken down the bay, May 19, making a very thorough inspection of the ship and of the cadets. During the day the cadets were exercised in the evolutions of tackling, reefing and furling, and of making and taking in sail, under the direction of their own cadet officers. The engines, while the ship was under steam, were also handled entirely by the cadets.

The "Enterprise" sailed on her regular summer cruise May 23, 1896, with 111 cadets, as against 83 the previous year. The first port touched at was Horta of the Azores, where the ship remained a few days, taking in fresh supplies. She then sailed for Queenstown, Ireland, June 20, arriving at that port July 2. The next place visited was Southampton, Eng., where the ship remained until July 25, when she sailed for Lisbon, Portugal. On August 15 the "Enterprise" sailed from Lisbon for Funchal, Madeira, arriving August 19. She remained there until August 22, sailing on that day for Boston and arriving here September 29.

There was one death on board, that of cadet A. E. Brown; and at the time the "Enterprise" entered port there were three cases of sore throat, which looked so suspiciously like diphtheria that, after consultation with the Board of Health and an examination by one of its officials, they were sent to the Boston City Hospital for observation and treatment. One of the cadets, W. J. Clare, soon after reaching the hospital developed a very malignant case of diphtheria, and died October 3, four days after entering the Boston City Hospital.

## INVESTIGATION.

The parents of young Clare were naturally much disturbed at their son's death, and a few days thereafter Mr. Clare came to the office of the commission (accompanied by Mayor Adams, of Quincy) and complained of the alleged ill-treat-

ment his son had received on board the "Enterprise," and demanded an investigation. He was told that the Board would investigate any charges that might be brought before them, and after he left the office he was requested in writing to furnish a list of such witnesses as he might desire to bring before the commission. He was also requested to make his charges in writing, in order that the commission might act intelligently and legally in the case.

In conducting the investigation which followed, and which occupied ten sessions of the Board, so much labor was thrown upon the clerk of the commission, and the testimony was so voluminous, that it was found necessary, in addition to his extra work, to engage an expert stenographer to take down the proceedings, as, without such services, neither the complainant nor the commission could have had an accurate transcript of the evidence, and the investigation would have dragged on for months. The testimony and arguments contain more than 1,100 pages, and the bill of the stenographers amounts to \$1,180.50, which, although seemingly large, is understood to be within the limits of the regular charges paid by the Commonwealth for such work. The unexpended balance of the regular appropriation of the commission is more than enough to settle these bills; but the State Auditor holds that they are not chargeable to that fund without special authority from the Legislature.

The investigation attracted great attention, not only in this State but all over New England, subjecting the school to criticism such as perhaps no other educational institution in this State has ever undergone before. To learn the facts and to place them before the public was, therefore, a duty both to the school and to the Commonwealth. The commission could not postpone the investigation without injustice both to complainant and officers.

#### RESULTS OF THE INVESTIGATION.

Having heard all the witnesses whom Mr. Clare or the officers asked to present (48 in all), the commission gave a long and serious consideration to the evidence, and presented their conclusions to His Honor the Acting Governor in a detailed report, dated Nov. 17, 1896. The findings on



the four questions involved — the food, care of the sick, the character of the ship's surgeon and the character of the other officers — are as follows : —

1. “The ship was properly provisioned when she sailed ; the food was in quantity and quality suited to the voyage ; the complaints made to the commander received immediate attention and were at once redressed ; the articles which ran out were not essential to the health or well-being of the boys ; the ship had a sufficient supply of provisions on board when she came into port ; the complaints as to the food are wholly unproved, and should be dismissed.”

2. “The provision for the care of the sick was such as is usual on such ships, and was sufficient for any emergency that might reasonably be expected. The sick-bay was large, airy and clean, the nursing as good as could be expected on shipboard, the food proper. There may have been instances of carelessness, but the charge of dirty quarters or neglect of nursing are not sustained, and should be dismissed.

“We believe, however, that the surgeon did not at all times show the professional solicitude toward his patients that his position demanded, but left too much to the nurse.

“To sum up the charges against the medical treatment by the doctor, the commission finds that he showed less interest than was due in minor cases ; that he treated the serious cases which arose according to approved methods, and with zeal, intelligence and skill ; that he should have exercised closer supervision over the nursing, and have taken greater precautions as to the use of brushes ; but that the illness and death of cadets Brown and Clare are not attributable to neglect by him or by any other person on board the ship.”

3. “In the face of the testimony of every officer who was closely associated with him in the ship and of many of the cadets that the surgeon was never seen by them intoxicated, the commission believes that the testimony of cadets and a ward-room boy who thought he was intoxicated is mistaken, and that this charge, as well as the other, that he neglected sick-calls, was probably due to seasickness. Nevertheless, a credible witness has testified to seeing him, off the ship, in a condition which is not suitable for an officer of the ‘Enterprise.’”

4. "The commission does not doubt that there were sometimes errors of judgment or faults on the part of some of the officers; but it finds that, besides the surgeon, no officer or petty officer of the 'Enterprise' deserves censure for his part in the cruise; and that, on the contrary, the officers have been zealous and efficient, and the ship has been well handled."

Considering, however, the circumstances of the case, the commission approved of Dr. Olcott's application for detachment from the ship.

In his personal relations with the cadets Lieutenant-Commander Eaton has plainly won their respect. He is a skilful officer, thorough seaman and able commander. He has made a just and humane superintendent, and the commissioners have been glad to hear of his promotion to the next higher grade in the navy.

An official copy of the proceedings during the investigation is on file in this office, which is accessible to any citizen of the Commonwealth.

As a result of this investigation, the commissioners have decided to have the following paragraph inserted in the applications for admission to this school:—

This schoolship is in no sense a reformatory, a sanitarium or a craft for pleasure sailing, and only boys of good character who will appreciate and avail themselves of the instruction are admitted; nor will they be allowed to remain on board unless they yield prompt and willing obedience to the rules and regulations of the ship, and obtain fair marks in their studies. Boys who are not rugged in physique and resolute in spirit, or boys who are at all afraid of work or wet or cold, or the general privations that may accompany a seafaring life, are not suited to become members of this school.

THESE FACTS SHOULD BE CLEARLY UNDERSTOOD BY PARENTS BEFORE ENTERING THEIR BOYS IN THE SCHOOL.

The commission has also passed the following vote:—

*Voted*,—That the rules and regulations of the United States Naval Service be in force on board the Training Ship "Enterprise," so far as applicable to the conditions of the school.



## STATISTICS OF CADETS.

The statistics of the school for the past year are as follows : —

*Admissions during 1896.*

Total number cadets in school Jan. 1, 1896, . . . . .	100
applications received 1896, . . . . .	121
failing to appear for examination, . . . . .	11
applicants examined, . . . . .	110
	<hr/>
	121
examined, . . . . .	110
passed examinations, . . . . .	78
unable to qualify after passing examination, . . . . .	4
failed to pass (mentally and physically), . . . . .	13
failed to pass the mental examination only, . . . . .	11
failed to pass physical examination only, . . . . .	8
Total admitted during 1896, . . . . .	74
	<hr/>
Total number cadets connected with school during 1896, . . . . .	174

*Withdrawals during 1896.*

Total number regularly graduated, . . . . .	34
withdrawn, . . . . .	31
dismissed, . . . . .	6
dropped from roll without a discharge, . . . . .	5
deserted, . . . . .	4
died, . . . . .	2
	<hr/>
	48
Total withdrawals, . . . . .	82
	<hr/>
Total number cadets in the school, Jan. 1, 1897, . . . . .	92

The 92 cadets now in the school are progressing steadily and satisfactorily in the knowledge of their adopted profession, while the discipline and *morale* of the corps are all that could be desired.

Since November, 1893, the total number of cadets that have entered the school is 334; total number of graduates, 75. Cadets transferred to ships and steamers to complete their course and entitled to diplomas, 6; grand total completing the course during two years, 81.

The cadets that have obtained employment, so far as known at this office, are as follows : —

Number of graduates and other cadets in American Line,	.	.	38
" " " " Union Line,	.	.	1
" " " " on merchant vessels,	.	.	15
" " " " ocean-going tugs,	.	.	5
" " " " steam yachts,	.	.	10
" " " " Plant Line steamers,	.	.	3
" " " " Mallory Line steamers,	.	.	2
" " " " other coastwise steamers,	.	.	2
" " " " coast survey steamers,	.	.	2
Total,	.	.	78

### PERSONNEL.

July 1, 1896, Dr. Robert B. Dixon of Boston was reappointed as a commissioner for three years.

The changes in the officers and instructors during the past year have been as follows : —

Dec. 30 1895, P. A. Engineer Ward P. Winchell, U. S. Navy, reported for duty.

Oct. 1, 1896, P. A. Engineer S. H. Leonard, U. S. Navy, reported for duty *vice* P. A. Engineer W. P. Winchell detached.

Nov. 12, 1896, Ensign William A. Moffett reported for duty, *vice* Ensign W. D. MacDougall, detached.

Nov. 24, 1896, Lieut. Fred'k R. Brainard, U. S. Navy, was detached.

Nov. 27, 1896, P. A. Surgeon F. W. Olcott was detached, and on Dec. 3 P. A. Surgeon Will F. Arnold reported for duty in his place.

Nov. 10, 1896, Lieut. Com. J. Giles Eaton was promoted to commander, U. S. Navy.

Nov. 18, 1896, Lieut. Arthur P. Nazro was promoted to lieutenant-commander, and December 31 he was detached.

Dec. 23, the commission was informed by the Navy Department that Lieut. (Junior Grade) Roger Welles, U. S. N., would be ordered as soon as practicable to the "Enterprise," in place of Lieut. F. R. Brainard, detached.

### EXPENDITURES.

In administering the affairs of the school the commissioners have endeavored to use the utmost economy consistent

with maintaining the efficiency of the school. From the annual appropriation of \$50,000 the commission will return to the treasurer a balance of \$1,871.58. Last year (after settling some old bills which ran over into the beginning of the year 1896) the net surplus returned was \$2,862.22. The difference is due to the larger expenses this year, caused by the increase in the number of cadets and by the greater number of ordinary repairs made necessary by the condition of the boilers. The stenographers' bills for the investigation — \$1,180.50 — should be added to this year's expenditures.

#### EXTRAORDINARY REPAIRS.

The wear and tear of vessels, and especially of steamships, from year to year is very great. When the Navy Department sent the "Enterprise" to Boston for the purposes of the school, it agreed to expend the sum of \$19,991.99 towards putting the ship in proper condition, on condition that the State would pay the additional amount of \$8,582.68 to complete the repairs necessary for the vessel. The Navy Department also agreed to turn over to the State all the complete outfit, rigging, sails, etc., belonging to the equipment department, and to do the necessary work, on condition that the State agreed to pay a certain proportion for labor and materials, amounting to \$4,081.06. These things were done. But it must be borne in mind that, in order to adapt, fit and furnish the ship for school purposes, the further sum of \$26,704.01 was appropriated by the Legislature, which money was expended as was necessary from time to time during the year 1893. The total amount expended by the Commonwealth for fitting out was therefore \$39,367.75.

Under the contract made with the United States government when the "Enterprise" was granted for the Nautical Training School, the Commonwealth pledged itself to keep the vessel in good condition while in the possession of Massachusetts. This guaranty has so far been made good out of the annual appropriation; but the time has now arrived when considerable repairs are necessary in the department of steam engineering on the "Enterprise," — a branch of great importance in the work of the school. The boilers now in the ship have been in use seventeen years. They were

surveyed by a board of naval engineers a year ago, and condemned for further use after the conclusion of the summer cruise now passed. Even to make them last so long a considerable expense had to be incurred in patching so that they might serve the purpose of that voyage; and during the cruise the boilers developed still greater weaknesses than the board of survey had discovered, so that it is now absolutely necessary to replace them. There are two new boilers at the Navy Yard, Portsmouth, N. H., originally made for the U. S. steamship "Galena," which the Navy Department is willing to turn over to the "Enterprise," provided the cost of installation is borne by the State, and provided legal authority be given. In the naval appropriation bill for 1896 a clause was inserted, through the kind interest of Senator Lodge, giving to the Commonwealth one of the boilers; and he has undertaken to introduce a new amendment this winter, granting the school the second of the "Galena" boilers. This proposition has the approval of the Bureau of Steam Engineering, U. S. Navy Department, and will probably be accepted by Congress.

The cost of the removal of the old boilers and the complete installation of the two new boilers has been estimated, and proposals for doing the work have been made by two responsible firms of this city. The lowest of these bids is \$7,954. It is probable that when the old boilers are removed other repairs will be found necessary in concealed parts of the ship, so that an appropriation of \$15,000 will be necessary to cover all contingencies.

#### ADMINISTRATION.

At the end of the third year of active operations the commissioners think it possible to estimate the future cost of the school and the probable number of graduates.

The annual appropriation of \$50,000 proves little more than enough to carry on the school when full or nearly full. The salaries of the officers and wages of the crew are nearly constant. Provisions the commission have provided liberally, in quantity and quality, and it does not deem it wise to reduce them. The ordinary maintenance of a ship-of-war—such as cordage, paint, spars, fittings, renewals—is large;

and in a steamship it is still heavier, owing to the coal and the repairs to boilers and machinery. The annual cost of the "Enterprise" is much less than that of any regular steam ship-of-war in the United States Navy of her tonnage.

The appropriation for office expenses—\$4,500—is as low as the commission thinks desirable, and is moderate in proportion to the current expenses of the school.

A ship deteriorates steadily, from the moment she leaves the dry-dock; a steamship especially needs large repairs from time to time, and without such repairs the ship cannot go to sea, nor can the obligation of the Commonwealth to keep the vessel in repair be carried out. Up to this time the yearly average expenditure for the training school for the four years 1893–96, during which it has been in active operation, has been \$53,061.20. This includes the current and office expenses, and is, in all, \$7,162.30 less than the amount appropriated by the Legislature for the maintenance of the school during that period. The extraordinary expense to be incurred in 1897 for replacing the boilers, for which an appropriation is now asked, may not occur again for years, unless some extensive repairs should be required upon the hull of the "Enterprise."

The comfortable capacity of the ship is about 100; but by a little crowding 110 can be cared for on board. The present number, after deducting the graduating class, is 92. The total number of applicants for admission to the school this present autumn has been larger than usual, but the physical and mental qualifications for admission have recently been raised to a considerably higher standard than formerly, with the intention of increasing the precautions against the admission of undesirable boys to the school.

During the past three years 334 young men have entered this school, of whom 81 have graduated in two years. Most of the graduates of the school have so far obtained positions in our merchant marine or as engineers on shore. One graduate is now in command of a brig, a number are officers of steamers or sailing vessels, one has passed his examination as a mate and coast pilot, and several cadets are in the American and Clyde lines of steamers. The law compelling the subsidized steamer lines to carry one cadet for every 1,000 tons burden has opened up a field of employment to



many of these cadets. The Commonwealth is opening up a seafaring career each year to about 40 young men, beside the valuable education which it gives to boys who do not finish the course, or who take shore employment. The expenditure, therefore, of the Commonwealth for this school is for the preliminary training of an officer in the merchant marine, and the development of a volunteer naval officer in time of war.

The commission has provided a good practical education for navigators and marine engineers, and administered the money appropriated by the Legislature as economically as possible.

#### APPROPRIATIONS.

The estimates for 1897 are as follows :—

For current expenses, the same sum as heretofore, viz., \$50,000.

For office expenses, the same sum as heretofore, viz., \$4,500.

For the extraordinary expense of installing the two boilers, granted by the United States government, an extra appropriation of \$15,000, or such part thereof as may prove necessary : a considerable portion of this they hope may be returned to the treasury.

For the service of 1896 the commission respectfully asks the Legislature to reappropriate, out of the surplus returned by the commission to the treasury, the sum of \$1,180.50, in payment of the bills for reporting the investigation.

The appropriations for the school for 1896 which are here accounted for were :—

<i>Current Expenses.</i>	
Appropriation, . . . . .	\$50,000 00
Expended :	
Pay roll, . . . . .	\$22,766 20
Provisions, . . . . .	12,555 49
Instruction, . . . . .	949 89
Seamanship department, . . . . .	3,650 93
Engineering department, . . . . .	5,399 64
Miscellaneous, . . . . .	2,806 27
	<hr/>
	48,128 42
Total amount expended, . . . . .	<hr/>
Balance unexpended, . . . . .	\$1,871 58

*Office Expenses.*

Appropriation, . . . . .	\$4,500 00
Expended :	
Salaries, . . . . .	\$2,900 00
Commissioners' expenses, . . . .	465 40
Miscellaneous, . . . . .	1,134 56
	<hr/>
Total amount expended, . . . . .	4,499 96
	<hr/>
Balance unexpended, . . . . .	04

Respectfully submitted,

GEO. E. BELKNAP,

REAR ADMIRAL, U. S. N. (Retired), LL.D.

*Chairman.*

ROBT. B. DIXON, M.D.,

ALBERT BUSHNELL HART, PH.D.,

*Board of Commissioners.*

BOSTON, Jan. 1, 1897.



# LEGAL AUTHORITY FOR THE SCHOOL.

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AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402.]

AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,

said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.  
[Approved June 11, 1891.]

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,  
COUNCIL CHAMBER, BOSTON, NOV. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship *Enterprise* for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and

section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### *Establishment.*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war Enterprise, as a vessel suitable for the purpose.



ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

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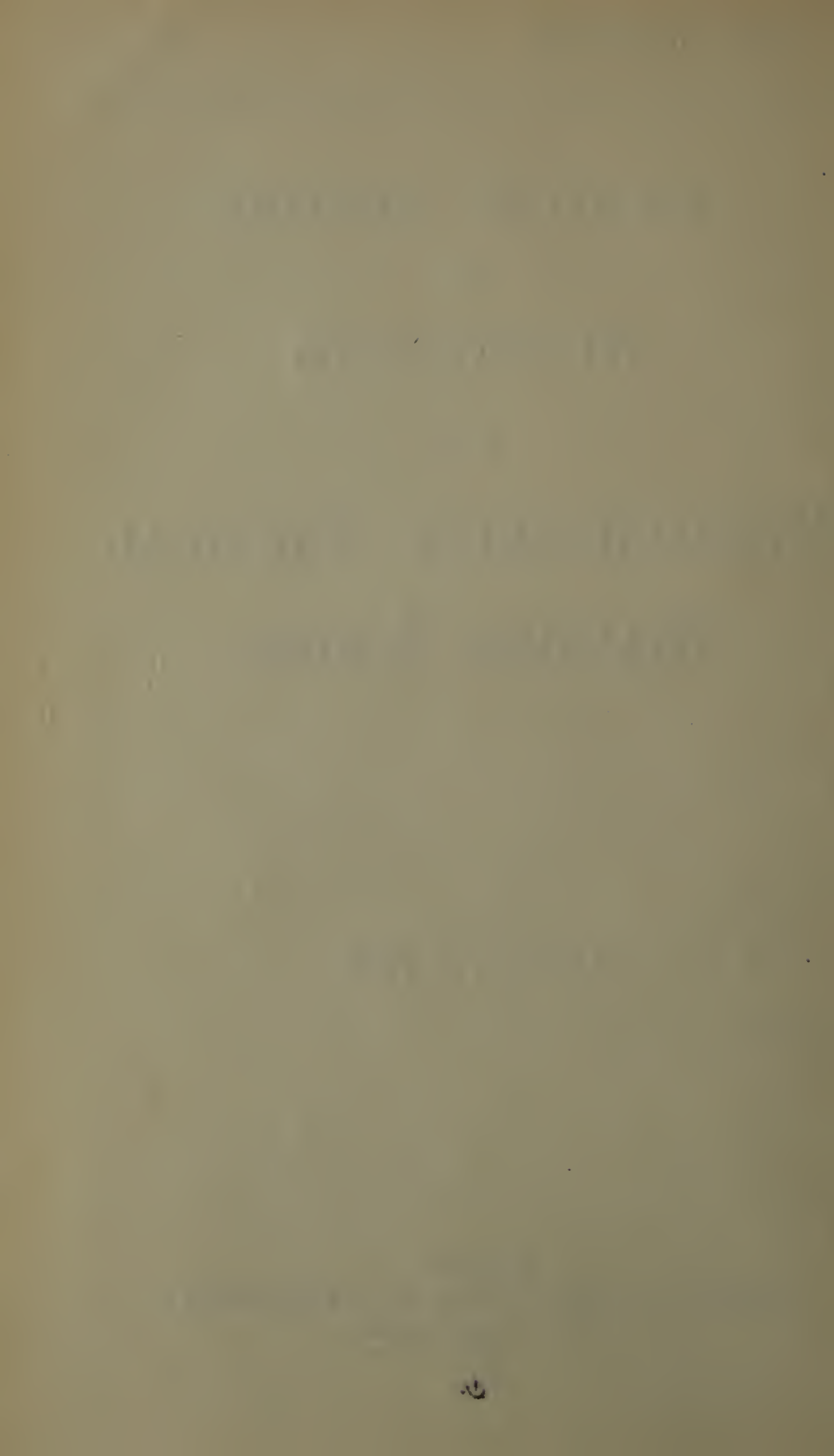
JANUARY 1, 1898.

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1898.







# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1897.

### IN GENERAL.

The Nautical Training School has now become established as a permanent institution of the State. The Legislature, by its regular appropriations, shows its continued interest; and the Governor and other executive officers, by their visits to the ship and their addresses to the cadets, have expressed their confidence in the system of nautical training which has now been pursued since 1893. Relying on these evidences of satisfaction with the general policy of the school, the commission ask only that they may have the same means at their disposal as in the last three years, and the same cordial support of the school by the State authorities.

### WINTER TERM.

For the third year the courtesy of the United States authorities at Washington and at the Charlestown Navy Yard has given to the State the privilege of a berth for the "Enterprise" at the yard. The ship was moored Oct. 9, 1896, and remained

at the wharf until June 12, 1897. The usual routine was followed of study, engineering practice and ship duty. The installation of the new boilers interrupted the regular work of the school only during the weeks from April 22 to May 10, 1896.

At the regular semi-annual graduation twelve cadets received their diplomas,—five in the engineering class and seven in the seamanship class. The diplomas were duly presented by His Excellency the Governor.

#### CHANGES IN THE BOILERS.

In accordance with the recommendations of the Board in its annual report for 1896, the Legislature made a special appropriation of \$15,000 to meet the expenses of installing two new boilers, which had been given by the United States government for the “Enterprise.” As soon as the appropriation became available the commission asked for bids on the work, which involved the opening of the decks, the removal of six old boilers and the substitution of the two new large boilers. As a part of the work, Past Assistant Engineer S. H. Leonard found it necessary to ask for a small separate boiler, to be used especially for heating, and for power for electric light when the ship was not under steam. Many changes of pipe connections were also necessary. Bids for the complete work were requested from all the three firms in this vicinity which have the plant necessary for such a complicated job. The bids were as follows:—

The Atlantic Works, . . . . .	\$13,697 00
Lockwood Manufacturing Company, . . . . .	13,125 00
Charles River Iron Works, . . . . .	10,886 00

The contract was, therefore, duly awarded to Edward Kendall & Sons, of the Charles River Iron Works, as the lowest bidders, under the penalty of \$25 a day if the work lasted more than forty-seven days from the time when the ship was turned over to them. The work was begun April 22, and was finished to the full satisfaction of Chief Engineer Leonard on June 7. Some extras, not included in any of the bids, caused in part by the loss at sea of certain boiler fittings which had been prepared for the “Galena” when the boilers were made, brought up the cost of the whole work to \$13,662.55.

The experience of the summer cruise and of the three months since the ship's return shows how great is the improvement thus made. The consumption of coal, while not under steam, has been reduced from thirty-three tons to twenty-one tons per month. The speed of the ship has been raised from five knots under steam to eight knots, with no larger consumption of coal. The gain in speed per ton of coal has been sixty-one per cent. when steaming, and the consumption of coal for dynamo and heating purposes during the winter months has been reduced sixty-four per cent. The machinery has run more smoothly, and the cadets have had a better opportunity to learn its uses. In short, the machinery, boilers and appurtenances are now in better condition than they were when the ship was first received from the Navy Department in 1892; and, as an evidence of this, the "Enterprise" was ahead of her scheduled time in every passage made from port to port during her summer cruise; and her run across the Atlantic, from Boston to Southampton, was the quickest she has made since she has been in the service of the State.

For this improvement in the department of steam engineering much credit is due Past Assistant Engineer S. H. Leonard, whom the superintendent specially commends to the commissioners for his diligence and efficiency as an officer in his special lines of work.

#### SUMMER CRUISE.

Following the very searching public investigation into the methods and management of the school that took place after the return of the "Enterprise" in the autumn of 1896, it is gratifying to note that the past year has been one of the most efficient in the history of the training school, and that the summer cruise of 1897 was especially satisfactory.

The "Enterprise" sailed on June 16, 1897, with a full complement of one hundred and three cadets. During the cruise the "Enterprise" visited Southampton, Havre, Gibraltar, Madeira and Bermuda. The health of the cadets, officers and crew during the four months was excellent, no serious cases of illness having been developed; there was no evidence of dissatisfaction with the food; the general morale of the corps was admirable, while the cadets gained greatly in physical health

and in the practical knowledge of their profession during the voyage.

The most notable incident was the accident by which the life of Cadet H. Proctor Smith of Cambridge was imperilled. On August 19, when the ship was one day out from Madeira, by a sudden tautening of the jib sheet Cadet Smith was thrown overboard. Two life-buoys were instantly dropped, and he fortunately succeeded in getting hold of one of them. The ship was brought by the wind, sail reduced, and hove to. The life-boat had in the mean time been lowered and manned by four seamen and three cadets, and the plucky youngster was soon picked up and brought on board. The wind was fresh, making a heavy following sea, and carrying the ship along at the rate of ten knots an hour, dragging her propeller.

The rescue of the cadet under such conditions bespoke the excellent discipline and steady courage that pervaded the ship from cabin to forecastle. Commander Eaton himself was on deck at the time, and commended the good judgment and skilful seamanship of the executive officer, Lieut. W. F. Low, upon that occasion. The entire incident, with the varied demands that were so skilfully met, was creditable in the highest degree to the commander, his officers, men and cadets, as seamen and pupils.

The "Enterprise" arrived in Boston on October 6, and on October 26 twenty-nine cadets, the largest graduating class in the history of the school, received diplomas at the hands of the Governor of the Commonwealth. Thirteen were in the seamanship class and sixteen in the engineering class.

#### THE DEMAND FOR GRADUATES.

It has been the custom in past years to advertise in the newspapers, notifying young men of vacancies in the school; but for the first time this proved unnecessary this year, as it was found that a sufficient number of applications was on file to fill up the school.

The value of the training obtained in this school is indicated by the disposition on the part of the parents to avail themselves of its opportunities, as well as by the more significant fact that the larger part of its graduates obtain employment soon after leaving the school. One member of the class of



October, 1897, was immediately engaged for the very responsible position of second mate of a ship of sixteen hundred tons on a voyage to China; another graduate, after an examination, received a pilot's license, and was engaged as a pilot on a steamer running in Massachusetts Bay; another is in command of a brig of the Pacific coast; one is quarter-master on a Pacific coast steamer; another has a good position on a United State coast survey steamer; several have permanent positions on the American Line steamers as assistant engineers and quarter-masters; and, although it is extremely difficult to keep a correct record of graduates after they commence their life work, at least ninety-four of the graduates of the school within the past three years are known to be in responsible positions, earning a good livelihood, as a result of the technical education they have received in this school.

The cadets who have obtained positions since the school was established, so far as known at this office, are as follows:—

Transatlantic steamers, . . . . .	46
Coastwise steamers, . . . . .	11
Excursion steamers, . . . . .	2
Ocean-going towboats, . . . . .	5
Steam yachts, . . . . .	10
Coast survey steamers, . . . . .	3
Merchant vessels, . . . . .	22
Naval Academy, . . . . .	1
Miscellaneous, . . . . .	8
Total, . . . . .	108

#### PERSONNEL OF OFFICERS.

July 1, 1897, Rear-Admiral Geo. E. Belknap, U. S. Navy (retired), of Brookline, was reappointed as a commissioner for three years.

The changes in the officers and instructors during the past year have been as follows:—

Jan. 2, 1897, Past Assistant Surgeon Will F. Arnold, U. S. N., was detached.

Jan. 2, 1897, Lieut. William F. Low, U. S. N., reported for duty as executive officer, *vice* Lieut. Arthur P. Nazro, detached.

Feb. 1, 1897, Lieut. Roger Welles, U. S. N., reported for duty, *vice* Lieut. F. R. Brainard, detached.

It is much to be regretted that the number of naval surgeons has been so small that from Jan. 2, 1897, to the present time, no detail of a surgeon was made by the Navy Department for the "Enterprise." It is as important to have a regular medical officer of the navy for service on board as it is to have naval officers of the seamanship and navigation and steam engineering grades as members of the superintendent's staff of instructors in the several departments of the ship. During the cruise last summer a civilian medical officer had to be employed. This fall and winter, while the ship is at the Navy Yard, Medical Inspector John L. Neilson, U. S. N., is employed to attend to the cadets in the line of his profession. It is to be hoped, however, that the Navy Department will at an early day see its way clear to again assign a medical officer of the Navy to the ship.

#### STATISTICS OF CADETS.

The table on the next page shows the number of cadets applying, examined, failing to pass, passing and admitted, and the number of graduations and withdrawals. The small number of candidates rejected, — 7, as against 32 in the previous year, — is due to the improvement in quality of the boys who have come forward, and is, perhaps, the result also of a circular sent to every applicant by the Board of Commissioners, in which he is warned that the ship is a place for hard work under strict discipline.



*Cadets admitted during 1897.*

Number in school Jan. 1, 1897:—		
Seamanship class, . . . . .		39
Engineer class, . . . . .		53
Total, . . . . .		92
Applications received, 1897, . . . . .		
Failing to appear for examination, . . . . .	8	89
Applicants examined, . . . . .	81	89
Examined, . . . . .		81
Failed to pass (mentally and physically), . . . . .	1	
Failed to pass mental examination, . . . . .	5	
Failed to pass physical examination, . . . . .	1	
Passed examinations, . . . . .	74	81
Passed examinations, . . . . .		74
Re-entered, . . . . .	1	
Post-graduates, . . . . .	2	3
Unable to qualify after passing, . . . . .		77
		4
Total number added to the school during 1897, . . . . .		73
Total number cadets connected with school, 1897, . . . . .		165

*Cadets withdrawn during 1897.*

Total number regularly graduated, . . . . .		41
Withdrawn, . . . . .	20	
Dismissed, . . . . .	5	
Dropped from roll without a discharge, . . . . .	2	
Dropped from roll (unadapted), . . . . .	2	
Total withdrawals, dismissals, etc., . . . . .		29
Total withdrawals, 1897, . . . . .		70
Number in school Jan. 1, 1898:—		
Seamanship class, . . . . .		37
Engineer class, . . . . .		58
Total, . . . . .		95

## THE DIETARY.

For the information of the Legislature the bill of fare of the "Enterprise" is appended, and it is to be noted that the food supplies purchased for the use of the school are of the best quality.

## BILL OF FARE.

Cocoa every morning, after hammocks are stowed.

## MONDAY.

*Breakfast.* — Oatmeal and milk, beefsteak or stew or eggs, bread and butter, coffee and cocoa.

*Dinner.* — Roast beef, potatoes, tomatoes, pickles, bread, pudding, coffee and cocoa.

*Supper.* — Cold meat, cheese, apple sauce, bread and butter, tea.

## TUESDAY.

*Breakfast.* — Fish hash, bread and butter, ginger bread, coffee and cocoa.

*Dinner.* — Bean soup, roast mutton, potatoes, corn, bread, bread or rice pudding, coffee and cocoa.

*Supper.* — Cold meat, cakes, prunes, bread and butter, molasses or syrup, tea.

## WEDNESDAY.

*Breakfast.* — Beef stew, bread and butter, coffee and cocoa.

*Dinner.* — Roast or boiled beef, potatoes, turnips, cooked green vegetables or salads, bread and butter, stewed fruit, coffee and cocoa.

*Supper.* — Corned beef, apple sauce, bread and butter, tea.

## THURSDAY.

*Breakfast.* — Pork and beans, bread and butter, coffee and cocoa.

*Dinner.* — Pea soup, roast beef, potatoes, corn or peas, fruit, bread, boiled pudding, coffee and cocoa.

*Supper.* — Cold meat, cakes, prunes, bread and butter, molasses or syrup, tea.

## FRIDAY.

*Breakfast.* — Oatmeal and milk, liver or eggs or fish hash, bread and butter, coffee and cocoa.

*Dinner.* — Fish or clam chowder, pickles, potatoes, bread or rice pudding, bread, coffee and cocoa.

*Supper.* — Cold meat, stewed apples, cheese, bread and butter, tea.

## SATURDAY.

*Breakfast.* — Beef hash, bread and butter, coffee and cocoa.

*Dinner.* — Bean soup, boiled ham or shoulder, potatoes, cabbage, fruit, bread, coffee and cocoa.

*Supper.* — Corned beef, apple sauce, bread and butter, tea.

## SUNDAY.

*Breakfast.* — Pork and beans, bread and butter, coffee and cocoa.

*Dinner.* — Pea soup, fowl, potatoes, cooked green vegetables or salads, pie or fruit, bread, coffee and cocoa.

*Supper.* — Cakes, bread and butter, stewed prunes, tea.

Salads are to be made of suitable vegetables. Canned vegetables and canned meats, of every description, to be used *only when*, owing to the season of the year or other causes, the fresh vegetables, and fresh and salted meats, cannot be obtained.

The quantities in the above diet table are unrestricted; each cadet to have all he wishes to eat.

The equivalent in meats may be substituted in this dietary if found necessary.

## GYMNASIUM.

Through the courtesy of Commodore Henry L. Howison, U. S. N., commandant of the Navy Yard, a gymnasium has been established on board the old "Constitution" for the use of the cadets. The good old ship affords ample room for gymnastic exercises, and the historic interest of the vessel must not only be a continual inspiration to the cadets, but lead them to fresh study of American naval history, and prompt them to imitate the example set before them by the great seamen of the past.

## GENERAL SUGGESTIONS.

The installation of the ship now occupied by the school is as nearly complete as can be expected. For the purposes of the school a square-rigged vessel of the old type, with good steam power, is preferable to a ship with sail power alone. The "Enterprise" is such a vessel.

The commissioners consider that the school is in a high state of efficiency, and have had much pleasure in expressing their lively satisfaction to Commander Eaton and his able staff of officers for the good work they have done and for the excellent results they have achieved in their respective spheres.

## APPROPRIATIONS.

The estimates for 1898 are as follows : —

For current expenses, the same sum as heretofore, viz., . . .	\$50,000 00
For office expenses, the same sum as heretofore, viz., . . .	4,500 00

The appropriations for the school for 1897, which are here accounted for, were : —

<i>Current Expenses.</i>	
Appropriation, . . . . .	\$50,000 00
Expended : —	
Pay roll, . . . . .	\$22,864 42
Provisions, . . . . .	13,096 80
Instruction, . . . . .	1,064 47
Seamanship department, . . . . .	4,333 49
Engineering department, . . . . .	3,765 20
Miscellaneous, . . . . .	4,022 76
Total amount expended, . . . . .	49,147 14
Balance unexpended, . . . . .	\$852 86

<i>Office Expenses.</i>	
Appropriation, . . . . .	\$4,500 00
Expended : —	
Salaries, . . . . .	\$2,981 50
Commissioners' expenses, . . . . .	548 45
Miscellaneous, . . . . .	813 32
Total amount expended, . . . . .	4,343 27
Balance unexpended, . . . . .	\$156 73

Respectfully submitted,

GEO. E. BELKNAP,

REAR ADMIRAL, U. S. N. (Retired), LL.D.,

*Chairman.*

ROBT. B. DIXON, M.D.,

ALBERT BUSHNELL HART, PH.D.,

*Board of Commissioners.*

Boston, Jan. 1, 1898.

## LEGAL AUTHORITY FOR THE SCHOOL.

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AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC  
MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.



## AUTHORITY OF THE STATE OF MASSACHUSETTS.

## [CHAPTER 402.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,



said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.

[*Approved June 11, 1891.*]

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship Enterprise for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and

section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

*Establishment.*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war Enterprise, as a vessel suitable for the purpose.

# ANNUAL REPORT .

OF

THE COMMISSIONERS

OF THE

# MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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JANUARY 1, 1899.

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BOSTON :  
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,  
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1899.

C.



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled.*

### INTERRUPTION CAUSED BY THE WAR.

In submitting their sixth annual report of the operations of the Massachusetts Nautical Training School for the year 1898, the commissioners desire to call attention to the fact that, owing to the conditions resulting from the late war with Spain, the school has been subjected during the past year to a very severe test in carrying on its work, and has also had an unexpected and favorable opportunity of proving the value of the school in training young men for the naval service, as well as for the mercantile marine.

Early in April, at the close of the winter term of 1897, when about to commence preparations for the usual summer cruise of the "Enterprise," it became apparent to the commissioners that, in view of the probable war, it would be unwise to attempt to send the ship into foreign waters.

During the first two weeks in April all of the five naval officers detailed to the "Enterprise," including the commander, were detached by the Navy Department and ordered to active duty in United States ships of war. As there seemed a probability that the Navy Department might also need the services of the "Enterprise," which is only loaned by the general government to the Commonwealth of Massachusetts, the commissioners applied to the Secretary of the Navy, through Senator Henry Cabot Lodge, in regard to

that matter, and were informed in due course that the "Enterprise" would not be required for government use. It was then determined by the commissioners that the school should be continued, although meanwhile both the Pennsylvania and the New York nautical schools had been temporarily closed.

To that end vigorous efforts were at once made to secure suitable officers for the "Enterprise," who should also be competent to act as instructors in navigation, practical seamanship and marine and electrical engineering. This was found to be no easy task, as the organization by the general government of a large auxiliary navy had created a demand for educated and experienced officers of the mercantile marine, while the retired officers of the navy had also been largely drawn upon for the new ships.

In this emergency the secretary of the Board, Capt. F. Stanhope Hill, volunteered to perform the additional service of acting as superintendent during the cruise. Captain Hill's experience as a commanding officer in the mercantile marine and in the navy during the civil war, and his complete knowledge of the school, would have made him a competent superintendent; but the Board felt that they could not dispense with his services as secretary, in which office he has saved the Commonwealth considerable sums by his systematic business methods.

The commissioners were at last, fortunately, enabled to secure the services of Commander Andrew J. Iverson, U. S. Navy, an experienced seaman and a retired officer of the navy, as superintendent of the school and commander of the "Enterprise," and he took command May 1; the commissioners obtaining the required permission from the Navy Department to enable Commander Iverson to leave the limits of the United States. A somewhat limited number of other officers was also found, who filled, to the extent of their ability, the positions of executive, navigating and watch officers, engineer and surgeon.

#### SUMMER CRUISE.

It was then decided to limit the cruise of the ship to the coast of New England, which included visits to Marblehead,



Salem, Portland, Rockland, Bath, Bar Harbor and Eastport, Me., extending it finally, when it became evident that no Spanish vessels of war were in northern waters, to Halifax, N. S. This cruise began May 31, with ninety-seven cadets on board.

At all of these ports the "Enterprise" was most hospitably received. At Portland, on the Fourth of July, by special invitation of the municipal authorities, the cadets of the school took part as a battalion in a parade, in which a military organization from Montreal, Can., was also in line. At Bath, Me., through the courtesy of Gen. William B. Hyde, the engineering class was afforded an opportunity for visiting the Bath iron works, and inspecting the practical working of that great ship and engine building establishment.

At Eastport, Me., the chairman of the Board, Rear Admiral Geo. E. Belknap, U. S. Navy, met the "Enterprise" and gave her a very careful inspection, taking advantage of the occasion to extend his inspection to a brief cruise with the ship from Eastport to Bar Harbor, Me., that he might the better judge of the competency of the new officers and the efficiency of the cadets at sea.

At Halifax unusual courtesy was shown to the officers and cadets by the British army and navy authorities, including Vice Admiral Sir John Fisher, commanding the squadron, and Lieut.-Gen. Lord William Seymour, commanding the land forces, as well as the governor of the Province of Nova Scotia, the mayor of Halifax, and our consul-general, Mr. John G. Foster, who showed the officers every possible attention.

During the intervals between the visits to the ports above mentioned the cadets were constantly exercised at sea in steering, sounding, handling sails, reefing and shortening sail, tacking and wearing ship and other nautical evolutions, and the engineer cadets handled the engines while the ship was under steam. In fact, the working of the ship was entirely done (under the supervision of the officers) by the cadets, and, as might be expected, they greatly improved in the knowledge of the practical side of their profession during this cruise.

In his report to the commissioners Commander Iverson notes the fact that during the entire cruise they were greatly delayed and quite seriously inconvenienced by the prevalence of unusually thick fogs along our coast, particularly in the Bay of Fundy.

The "Enterprise" returned to Boston on September 15, after a satisfactory cruise of three and a half months, with all well on board, the general health of the ship's company and the cadets having been excellent throughout, the improvement in their physical condition being very manifest.

#### WAR RECORD OF CADETS.

When the news of the declaration of war with Spain became known, the cadets were at once inspired with a desire to do something for their country, and a number of them withdrew from the school and volunteered in different capacities in the navy and in the army. During the three months of active hostilities about seventy cadets and graduates of the school enlisted in the United States service. Although a "record of graduates" is kept in the commissioners' office, it is a very difficult matter to follow the career of the graduates after they leave the school to enter upon their life-work, and doubtless several are omitted from our list. So far as known sixty-six cadets or graduates served during the war, in the following capacities:—

#### NAVY.

Ensigns:—

George R. Lauriat, Medford, . . .	U. S. S. "Constellation."
Franklin B. Harwood, Rockport, . . .	U. S. S. "Scipio," "Glacier" and "Sandoval."
Horace F. Fuller, Melrose, . . .	U. S. S. "Lehigh."

Naval cadet:—

Wm. H. Boardman, Lawrence, . . . Monitor "Amphritrite."  
 Alfred J. O'Leary, Worcester — Passed examinations for entrance to the navy as a naval cadet, and was placed on list of eligibles, but saw no service on account of the termination of hostilities.

Assistant engineer:—

Edward M. Jennings, Hyde Park, . . . U. S. S. "Piscataqua."  
 W. Warren Ruggles, Dorchester — Passed examinations, and was duly qualified for appointment as assistant engineer, but did not serve in the navy on account of termination of the war.

## Chief machinists : —

Louis E Barnes, Worcester, . . .	U. S. S. "Harvard."
H. E. Kershaw, Lawrence, . . .	U. S. S. "Machias."

## 1st class machinists : —

David R. Driver, Weston, . . .	U. S. S. "Gov. Russell."
Herbert Clogston, Hyde Park, . . .	U. S. S. "Harvard."
Clarence E. Wood, Fall River, . . .	U. S. S. "Talbot" and "Buffalo."

## 2d class machinists : —

Ralph R. Bachelder, Lowell, . . .	U. S. S. "Resolute"
James F. Leslie, Worcester, . . .	U. S. S. "Concord."
John H. Marks, Jr., Roslindale, . . .	U. S. repair ship "Vulcan;" engineer third watch U. S. S. "Maria Teresa"
Geo. M. McBarron, Boston, . . .	U. S. S. "Cæsar" (col- lier).
P. W. Kimpton, Somerville, . . .	U. S. S. "Resolute."
Frank D. Doyle, Boston, . . .	U. S. S. "Gov. Russell."
Martin P. Kilcourse, Lawrence, . . .	U. S. S. "Southery."
Charles R. Seed, Lawrence, . . .	U. S. C. S. S. "A. D. Bache;" U. S. S. "St. Louis."
Ernest H. Merry, Lynn, . . .	U. S. S. "Harvard."

## Chief yeomen : —

George P. Carver, Roxbury, . . .	U. S. R. C. "Hannibal."
Davis W. Ware, Northfield, . . .	U. S. S. "San Francisco."
Richard Rowles, Marlborough, . . .	U. S. S. "Topeka."

## 1st class yeoman : —

George Spalding, Reading, . . .	U. S. S. "Marcellus."
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## Quartermasters : —

Harold W. Davis, Boston, . . .	U. S. S. "St. Paul."
Wilbur S. Sanders, Reading, . . .	U. S. S. "St. Louis."
Emery Rice, Boston, . . .	U. S. S. "Harvard."
Arthur W. Morey, Greenfield, . . .	U. S. S. "Yale"
Reo Bennett, Boston, . . .	U. S. S. "New Orleans."
Fred H. Stackpole, Hyde Park, . . .	U. S. S. "Prairie."
Wm. J. Fitzgerald, South Boston, . . .	U. S. S. "Monadnock."
Irving R. Wilmot, Boston, . . .	U. S. S. "Newark" and "Princeton."

## Mate : —

George E. Eaton, Wakefield, . . .	Senior mate U. S. S. "Mayflower."
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Gunner's mate : —

Fred'k A. Sparks, Provincetown, . . . U. S. S. "Bancroft."

Boatler and seaman : —

Arthur B. Thomas, Bedford, . . . U. S. R. C. "Manning."

Pharmacist : —

Chas. A. Noll, Concord Junction.

Miscellaneous (ratings not known) : —

John T. Carr, Malden.

Harry M. Davie, Boston, . . . U. S. S. "St. Louis."

Willis Howes, South Yarmouth.

Arthur W. Kelsey, West Hingham, . . . U. S. R. C. "Dallas."

David P. O'Brien, Marlborough.

Arthur E. Soper, Norton — Enlisted in Naval Reserve but saw no service.

Orison W. Woodbury, Lynn, . . . U. S. S. "Yorktown."

Eldon G. Freeman, Whitman, . . . U. S. S. "San Francisco."

Leonard F. Cox, Whitman, . . . U. S. S. "San Francisco."

Chas. W. Clift, Whitman.

James A. McGregor, Worcester, . . . U. S. S. "Harvard."

James H. B. Meehan, Lowell, . . . U. S. S. "Yale."

Harvey F. Bartlett, Somerville, . . . U. S. S. "Philadelphia."

Chas. E. Peterson, Somerville, . . . U. S. S. "Philadelphia."

Elmer G. Frisbie, Rockport, . . . U. S. S. "Piscataqua."

Joseph G. McGrath, Quincy, . . . U. S. C. S. S. "A. D. Bache."

Robt. B. Gregory, Boston, . . . U. S. S. "St. Paul."

James O. Howard, Holliston, . . . U. S. S. "Brooklyn."

Wm. Malley, Boston, . . . Gunner's mate, U. S. S. "Texas"

Geo. L. P. Covell, Boston, . . . U. S. S. "Prairie."

Wm. S. Earle, Worcester, . . . U. S. S. "Harvard."

Ernest R. Brown, Waltham. — Offered his services, but failed to pass physical examination for entrance to navy on account of throat trouble.

Frank P. Killion, Malden, . . . "Bay State."

W. A. McCarty, North Abington, . . . U. S. S. "Columbia"

Saunderson Macnamara, Worcester, . . . U. S. S. "St. Louis."

John O. Sargent, Worcester, . . . U. S. S. "Harvard."

Simon P. Meagher, Rockport. Lieutenant in Naval Reserve.

Edward F. Gavagan, South Boston, . . . U. S. S. "St. Paul."

Harry T. Phelps, Northampton, . . . U. S. S. "Niagara."

ENLISTED IN THE ARMY.

Philip W. Lauriat, Medford, 2d Lieutenant, Co. F, 1st U. S. Volunteer Engineers.

H. W. Jennison, Hudson, Co. M, 5th Mass. U. S. Volunteers; later transferred to band as cornet player.



Dwight B. Lawton, Worcester, 1st Sergeant, Co. H, 12th U. S. Infantry.  
Ralph E. Damon, Leominster, Co. B, 6th Mass. U. S. Volunteers  
Carroll M. Cheney, Worcester, enlisted in 47th New York Regiment,  
U. S. Volunteers, and went to Camp Black, but failed to pass physical  
examination on account of a difficulty with eyes.

Ex-cadet William H. Boardman of Lawrence had passed from this school to the Naval Academy at Annapolis, and was in the second class when the war with Spain commenced. He was ordered as a naval cadet to the monitor "Amphritrite," and was killed on board that ship by the accidental explosion of a shell, at San Juan, Porto Rico.

Edward M. Jennings of Hyde Park, who graduated from the school at the head of his class Oct. 10, 1895, received the commendation of the Navy Department on the excellent character of his examination for admission to the navy as an assistant engineer.

#### EXPRESSIONS OF APPROVAL.

A number of persons, mainly parents of cadets, have written to the Board expressing their opinions of the Nautical Training School, basing their views upon their personal knowledge. A few extracts from these letters are appended: —

During a somewhat extended term of service in the Legislature, one of my committees (Education) had more or less to do with the school under your control. I repeatedly visited the "Enterprise," and each time came away with increased admiration for what I saw. The school seemed to me to fill just the place long vacant in our system. Excellent mental and physical drill, with just enough of adventure in the annual cruise, gives to the boys an outfit for useful lives. I fancy that experience will result in even better future work, and that the training ship is assured a permanent place in the grand educative system of the Commonwealth.

ALFRED S. ROE.

WORCESTER, MASS.

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My son, a recent graduate, passed the examination for a position as an assistant engineer in United States Navy. After the signing of the protocol he passed the technical examination for

papers as first assistant engineer in the mercantile service, but lacked the sea service required by law. It seems to me the work done by your Board cannot be too highly commended, and should be continued in the future.

WILLARD RUGGLES.

BOSTON, MASS.

---

My son, Edward M. Jennings, was chief engineer of the U. S. S. "Piscataqua" during all the time she was in the service. Upon her going out of service he was assigned as engineer of the U. S. S. "Vixen," now at the Norfolk yard, Norfolk, Va., fitting out for coast survey, Cuba, and expecting to leave about the first of the year. He is chief engineer of "Vixen." If the young men will improve their opportunities on the "Enterprise," they can get and hold responsible positions.

E. L. JENNINGS.

BOSTON, MASS.

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My son, Geo. F. Waite, after serving two years on the "Enterprise," has continued a seafaring life, and his success in his profession and the excellent percentage he attained in obtaining a license as mate and first-class pilot for steamers of 3,000 tons in this district, I attribute to his experience and knowledge gained in the Nautical Training School.

HORACE WAITE.

BOSTON, MASS.

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Having had two of my sons on the "Enterprise," I have watched their progress somewhat critically. I know of no better manner of training and discipline to develop and bring into practical uses whatever latent powers and possibilities any strong, healthy lad may possess. To my mind it seems the preparing a proper foundation for any business or profession in after life. Am only sorry I did not put all my boys through the Nautical Training School.

BOSTON, MASS.

THOS. B. J. L. GRADY.

#### DETAIL OF NAVAL OFFICERS RESUMED.

All appointments made during the summer were subject to revocation when regular naval officers should again be assigned to the school.

On October 1 the Navy Department detailed to the "Enterprise" as commander, executive officer, navigating officer and watch officer, the following gentlemen:—



Commander Fred'k M. Wise, U. S. Navy.  
Lieut. Martin E. Hall, U. S. Navy.  
Lieut. Roger Welles, Jr., U. S. Navy.  
Ensign J. R. P. Pringle, U. S. Navy.

As the Navy Department was unable for the present to assign a surgeon or an engineer officer to the "Enterprise," both these positions have been filled by civilians.

Commander Wise is an officer of very high standing in the naval service, who has had several years' experience that especially fits him for his present post. He was three years at the Naval Academy at Annapolis as instructor in international law, and six years as head of the department of modern languages, besides serving as executive officer of the U. S. naval apprentice ships "Monongehela" and "Essex."

Lieutenant Hall is an officer of distinguished ability and scientific attainments, who, during the month of December, 1898, became by promotion a Lieutenant-Commander. He is an exceedingly efficient executive officer, and a valuable aid to the superintendent.

Lieutenant Welles and Ensign Pringle, who were attached to the school at the outbreak of the war, were detached by the Navy Department and ordered to active service. The commissioners were gratified at the desire of these officers to return to the Nautical Training School, as they had already proved their efficiency in their respective positions.

Commander J. Giles Eaton, U. S. N., was detailed to be superintendent of the school in December, 1896, and the Board hoped that he might remain for the usual term of three years. On his detachment, April 11, 1898, to take command of the U. S. S. "Resolute," the Board sent him a letter expressing their satisfaction with his conduct of the school and the high state of efficiency in which he left the "Enterprise."

#### CHANGES IN PERSONNEL.

July 1, 1898, Prof. Albert Bushnell Hart of Cambridge was reappointed as a commissioner for three years.

The changes in the officers and instructors of the school during the past year have been as follows:—

Jan. 13, 1898, Ensign W. A. Moffett, U. S. N., was detached.

January 22, Lieut. Roger Welles, Jr., U. S. N., was detached.

February 1, Ensign J. R. P. Pringle, U. S. N., reported, *vice* W. A. Moffett, U. S. N., detached.

February 23, Ensign Arthur B. Hoff, U. S. N., reported for duty, *vice* Lieut. Roger Welles, Jr., U. S. N., detached.

March 3, Lieut. Wm. F. Low, U. S. N., was detached.

March 7, 1898, Lieut. James T. Smith, U. S. N., reported for duty, *vice* Lieut. W. F. Low, U. S. N., detached.

April 5, Ensign Arthur B. Hoff, U. S. N., was detached.

April 11, Commander J. Giles Eaton, U. S. N., was detached.

April 11. Lieut. Jas. T. Smith, U. S. N., was detached.

April 11, P. A. Engineer Sam'l H. Leonard, U. S. N., was detached.

April 11, Lieut. Chas. A. Foster, U. S. N., retired, was appointed by the Board of Commissioners as commander of the "Enterprise" and superintendent of the school.

May 1, Mr. Cyrus D. Foss, formerly P. A. engineer, U. S. N., was appointed by the commissioners as chief engineer of the "Enterprise."

May 1, Dr. E. L. Saunders was appointed by the commissioners as surgeon.

May 1, Mr. Norman G. Burton was engaged as instructor in mathematics.

May 1, Lieut. Chas. A. Foster, U. S. N., having been ordered by the Navy Department to the U. S. S. "Wabash," resigned as superintendent of the school.

May 1, Commander Andrew J. Iverson, U. S. N., retired, was appointed as commander of the "Enterprise" and superintendent of the school.

May 7, Mr. James W. Hill was appointed as navigator and instructor.

May 7, Mate John Griffin, U. S. N., retired, was appointed mate.

June 1, Mr. Alfred E. King was appointed as temporary paymaster, in addition to his duties as captain's clerk.

June 15, Mr. William A. Colcord was appointed chief engineer, *vice* C. A. Foss, resigned.

September 15, Dr. T. Amory De Blois was appointed as surgeon, *vice* Dr. E. L. Saunders, resigned.

October 1, Commander Frederick M. Wise, U. S. N., reported as commanding officer.

October 1, Lieut. Martin E. Hall, U. S. N., reported as executive officer.

October 1, Lieut. Roger Welles, Jr., U. S. N., reported as navigating officer.

October 1, Ensign J. R. P. Pringle, U. S. N., reported as watch officer.

## STATISTICS OF CADETS.

*Cadets admitted during 1898.*

Number in school Jan. 1, 1898: —			
Seamanship class, . . . . .		37	
Engineer class, . . . . .		58	
Total, . . . . .			95
Applications received, 1898, . . . . .			155
Failing to appear for examination, . . . . .	12		
Unsatisfactory recommendations, . . . . .	1		
Awaiting examination, . . . . .	5		
Applicants examined, . . . . .	137		
	155		
Examined, . . . . .		137	
Failed to pass (mentally and physically), . . . . .	3		
Failed to pass mental examination, . . . . .	22		
Failed to pass physical examination, . . . . .	5		
Passed examinations, . . . . .	107		
	137		
Passed examinations, . . . . .	107		
Re-entered, . . . . .	2		
		109	
Unable to qualify after passing, . . . . .		10	
Total number added to the school during 1898, . . . . .			99
Total number cadets connected with school, 1898, . . . . .			194

*Cadets withdrawn during 1898.*

Total number regularly graduated, . . . . .			40
Seamanship class, . . . . .	15		
Engineer class, . . . . .	25		
	40		
Withdrawn, . . . . .	26		
Dismissed, . . . . .	11		
Dropped from roll without a discharge, . . . . .	10		
Deserted, . . . . .	2		
Total withdrawals, dismissals, etc., . . . . .		49	
Total withdrawals, 1898, . . . . .			89
Number in school Jan. 1, 1899: —			
Seamanship class, . . . . .		42	
Engineer class, . . . . .		63	
Total, . . . . .			105

## FINANCES AND APPROPRIATIONS.

The loss of the detail of United States naval officers during the war, and the necessity of engaging the services of civilians to fill their places, as well as the increased rate of wages demanded by all grades of seamen, caused an increase in the pay roll of the "Enterprise." Another result of the war has been that for the present, at least, the commission has been deprived of the admirable and very convenient docking facilities they had enjoyed at the Charlestown Navy Yard for the past three years, free of expense. The Navy Department having use for all the available room at the Charlestown yard for the ships of the navy, and being about to commence the erection of a large dry dock, it was deemed inadvisable to grant the facilities heretofore extended in the way of winter quarters for the "Enterprise."

The commission has succeeded, however, in securing an excellent wharf for the ship, with the use of an adjacent brick building, at the moderate rental of \$570, for the six months required. It is conveniently located on Commercial Street, and, fortunately, is enclosed, so that communication from the adjoining street is shut off, except by permission of the superintendent.

The "Enterprise" is now moored at that wharf with one hundred and five cadets on board, who are actively pursuing their studies under a full corps of naval and civilian instructors.

Notwithstanding these additional expenses, and after having had a very full school, kept up to a high standard of efficiency, the commissioners are gratified in reporting that the outlay for conducting the school during the past year has been kept within the customary appropriation of \$50,000, as is shown below.

At the request of the commissioners, the appropriation for office expenses was in 1895 cut down from \$5,000 to \$4,500. Within the past two years the increase in the number of cadets, the improvements in the administration of the finances and the painstaking system of the registration of cadets and graduates have thrown much additional



work upon the office force. We respectfully request that the appropriation be restored to the previous figure of \$5,000 a year, so that we may make a proper provision for the increased labor.

#### APPROPRIATIONS.

The estimates for 1899 are as follows : —

For current expenses, the same sum as heretofore, viz.,	\$50,000 00
For office expenses,	5,000 00

The appropriations for the school for 1898, which are here accounted for, were : —

<i>Current Expenses.</i>	
Appropriation,	\$50,000 00
Expended : —	
Pay roll,	\$25,195 24
Provisions,	14,003 54
Instruction,	738 41
Seamanship department,	3,860 36
Engineering department,	2,789 83
Miscellaneous,	3,343 37
Total amount expended,	49,930 75
Balance unexpended,	\$69 25

<i>Office Expenses.</i>	
Appropriation,	\$4,500 00
Expended : —	
Salaries,	\$3,101 98
Commissioners' expenses,	735 25
Miscellaneous,	610 95
Total amount expended,	4,448 18
Balance unexpended,	\$51 82

Respectfully submitted,

GEO. E. BELKNAP,

REAR ADMIRAL, U. S. N. (Retired), LL.D.,

*Chairman.*

ROBT. B. DIXON, M.D.,

ALBERT BUSHNELL HART, PH.D.,

*Board of Commissioners.*

## LEGAL AUTHORITY FOR THE SCHOOL.

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AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

### AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided*, *further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

## [CHAPTER 402.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,

said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.

*[Approved June 11, 1891.]*

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship *Enterprise* for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and

section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council ; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

# MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

## *Establishment.*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war Enterprise, as a vessel suitable for the purpose.



# ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

# MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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JANUARY 1, 1900.

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BOSTON :

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,  
18 POST OFFICE SQUARE.

1900.

*C.*



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts, in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1899.

### NEEDED REPAIRS TO THE "ENTERPRISE."

The work of the school during the past year has been very satisfactory to the commissioners. The institution has carried on its rolls a larger average of cadets than at any previous time, and the cadets have made good progress, but it has been more difficult than usual to keep up the efficiency of the school, because of the necessity of making needed repairs, which took considerable time, and therefore interfered with the regular work of instruction.

Under the act of Congress authorizing the establishment of public marine schools, provision was made for the detachment of naval vessels for the use of these schools. The U. S. S. "Enterprise" was thus assigned to the Commonwealth of Massachusetts, with the understanding that the ship should be kept in proper repair.

In 1897 her engines and boilers were found to be in such condition as required that the engines should be thoroughly repaired and the boilers replaced. For that work the Commonwealth made an appropriation of \$15,000, to cover the expense of installing the boilers, which were furnished by the United States government, and for repairing the engines. The time has now come when thorough repairs on the hull are necessary; and the commissioners trust that the Legislat-

ure will continue to show its interest by making such further special appropriation as may prove necessary for that work.

In March, 1899, before making arrangements for the summer cruise, the commissioners thought it advisable to ascertain the condition of the ship, and requested from the government an official survey upon the vessel. In compliance with this request, Naval Constructor Joseph Feaster, U. S. Navy, reported that both upper works and bottom required repair; and it was decided that the repairs upon the bottom of the ship were absolutely necessary before sending the vessel upon her cruise, and that repairs upon her upper works would be necessary before the usual summer cruise across the Atlantic could be undertaken. There was neither time nor sufficient funds at the disposal of the commission for the whole of these repairs; but after thorough personal inspection by the Board of Commissioners, aided by the advice of experts, it was decided to strip off the copper from the ship's bottom, and carefully examine the condition of her planking. As was hoped, most of the wood was found to be sound, so that, by replacing certain planking and making some repairs to the stern, the bottom was made ready for a new metal sheathing, which was forthwith put on. This work cost \$5,188.36.

Unwilling to incur expenses requiring a deficiency appropriation, the commissioners made a special effort to meet this outlay from the regular annual appropriation of \$50,000 for the current expenses of 1899. This diminution of the entire annual income by more than ten per cent. made necessary a very rigid economy throughout the last nine months of the year, and it became necessary, in order to prevent a deficit, to lay off for a month without pay a number of petty officers. By these necessary but undesirable economies the commission has brought its financial year to a close with a small credit balance.

#### *Estimates for Repairs.*

In view of the opinion of U. S. Naval Constructor Feaster, the commissioners cannot make plans for the foreign cruise next summer, which in past years has been so useful a part of the work of the school, until the upper works have been properly repaired. It is absolutely neces-

sary to renew the wales or planking of the "Enterprise," from the copper line up to the spar deck.

The official estimate of Naval Constructor Baxter, U. S. Navy, for the repair of the upper works, is \$16,400. In addition to this there are other necessary repairs not included in his estimate. The commissioners have also invited bids from three responsible firms, contingent on a sufficient appropriation being made by the Legislature, and have thus obtained assurances that the whole work can be brought within the naval constructor's estimate for the upper works alone. We therefore respectfully ask for a special appropriation of \$15,000, to be devoted exclusively to such repairs, including a new smokestack and new bilge and donkey engine feed pipes.

It is the opinion of Naval Constructor Joseph Feaster, U. S. Navy, that with these repairs the ship will be practically as good as new, and ought to last for twenty years without much further expense. No repairs to the hull of the ship, other than those specified, have been made since the "Enterprise" was put into commission by the State as a nautical training school.

As the applications for admissions to this school are constantly increasing, it is the intention of the commissioners to also add additional accommodations, so that an increased number of cadets may be provided for on board the "Enterprise."

It is very certain, by the terms of the contract by which the "Enterprise" was obtained, that, if the school is to be continued, and the commissioners believe that its usefulness has been conclusively proved in the past, the ship loaned to the State by the United States government must be kept in a sea-worthy condition. It is to be noted that, of the three schoolships loaned by the general government to the States of New York, Pennsylvania and Massachusetts, our Commonwealth has the only steamship, and is thus enabled to provide its cadets with instruction in practical marine and steam engineering, as well as seamanship. As a result, the engineering cadets of this school are always in demand by the great steamship lines of the country, and over two hundred of our graduates and cadets are already to be found as mates, quartermasters and assistant engineers, doing excel-



lent work in these positions; and, as an evidence of the broad scope of this school, one graduate, after serving in the American line of steamers, has lately been appointed first officer in the imperial Chinese revenue service, which may lead to the employment of other graduates of this school abroad. Two others are just entering as officers in the new United States Army transport service.

During the Spanish war this school furnished about seventy-five of its graduates to the naval service, in various positions of responsibility, and excellent reports were received from these young men.

#### SUMMER TERM.

The summer cruise of 1899 was confined to our northern coast, including a visit to Fortress Monroe, where the extensive plant of the Newport News Shipbuilding and Dry Dock Company was thoroughly inspected by the cadets. The Naval Academy at Annapolis was also visited, and the courtesies of the institution were extended to the cadets by the commandant, Rear Admiral Fred'k V. McNair, U. S. Navy. New York was the next port visited, and from there the "Enterprise" passed into Long Island Sound, where at Gardiner's Bay the ship remained several days for boat exercise and drill.

Continuing the cruise, Halifax, N. S., was the next port visited, where the ship met with a very hearty welcome. Thence she sailed for Bar Harbor, and later touched at Bath, where the famous ship-building works of the Bath Iron Works were inspected by the cadets, with great interest and to their unquestioned advantage. After a short visit to Portland, the "Enterprise" sailed for Gloucester, and finished her summer cruise of four months at Boston, Sept. 26, 1899.

#### WINTER TERM.

The ship is now moored at a wharf numbered 529 Commercial Street, Boston, where she will remain during the winter term. Instruction is being given on board to one hundred and eight cadets, which is about the total number that the ship will now accommodate.

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by per-

sonal observation, the commissioners and the superintendent would be gratified to have them visit the "Enterprise" at the above-mentioned wharf on any day excepting Saturday or Sunday, when the cadets are absent on leave.

### STATISTICS OF CADETS.

#### *Cadets admitted during 1899.*

Number in school Jan. 1, 1899:—			
Seamanship class,		42	
Engineer class,		63	
Total,			105
Applications received, 1899,			
Failing to appear for examination,	14	139	
Awaiting examination,	11		
Unsatisfactory recommendations,	1		
Applicants examined,	113		
	139		
Examined,			113
Failed to pass mental examination,	48		
Failed to pass physical examination,	6		
Passed examinations,	59		
	113		
Passed examinations,			59
Re-examined mentally, and passed,	21		
Readmitted,	1		
Post graduate,	1		
		82	
Unable to qualify after passing,		3	
Total number added to school during 1899,			79
Total number connected with school during 1899,			184

#### *Cadets withdrawn during 1899.*

Total number regularly graduated,			24
Seamanship class,	11		
Engineer class,	13		
	24		
Number granted an honorable discharge,			41
Seamanship class,	24		
Engineer class,	17		
	41		
Total graduated and honorably discharged,			65
Deserted,			7
Dismissed,	3		
Dropped from roll,	1		
Total dismissed, etc.,		11	
Total withdrawals, 1899,			76
Number in school Jan. 1, 1900:—			
Seamanship class,		38	
Engineer class,		70	
Total,			108

## CHANGES IN PERSONNEL.

Nov. 20, 1899, Prof. Albert Bushnell Hart, who has served as a commissioner since July 1, 1895, felt reluctantly compelled, through pressure of professional duties at Harvard University and his increasing literary work, to tender His Excellency the Governor his resignation as a commissioner of the Massachusetts Nautical Training School. The resignation was accepted by the Governor, who nominated to the Executive Council, as a successor to Commissioner Hart for his unexpired term, Hon. John Read of Cambridge. The nomination was confirmed, and Mr. Read entered upon his duties Dec. 7, 1899.

The changes in the officers and instructors of the school during the past year have been as follows:—

July 12, 1899, Mr. Norman G. Burton, instructor, resigned.

August 7, Lieut.-Com. Martin E. Hall, U. S. N., detached.

September 30, Lieut. J. R. P. Pringle, U. S. N., detached.

October 8, Lieut. Roger Welles, U. S. N., detached.

October 12, Lieut. Levi C. Bertolette, U. S. N., reported.

November 1, Lieut. Robert E. Coontz, U. S. N., reported.

November 15, Lieut. Geo. G. Mitchell, U. S. N., reported.

## ACCIDENT TO WARD-ROOM STEWARD MITCHELL.

On Aug. 17, 1899, while the "Enterprise" was at Halifax, N. S., Commander Wise reported that Ward-room Steward Chas. E. Mitchell had met with a serious injury that morning. Mitchell was coming down to the Navy Yard landing in a grocer's wagon with two other persons, with some marketing for the ship. Along the line of the Navy Yard runs the Inter-Colonial Railroad, the crossing having a flagman. The crossing having been signaled clear, the wagon started across, and was struck by a freight car, which

was backing down without the locomotive. There were three people in the wagon, all of whom jumped, and Mitchell unfortunately fell on the track, the car wheel crushing his left foot so badly that, on reaching the Victoria hospital in the ambulance, which had promptly come on call, the surgeons of that institution found it necessary to make an amputation just above the ankle.

Mitchell was cared for at the hospital until the "Enterprise" sailed, when he was taken on board ship, where he remained until the "Enterprise" reached Boston. He was kept on pay until Nov. 15, 1899, when, as he expressed his inability to perform the duties of steward or cook, he was given, at his own request, a letter to the Governor, stating his case, that he might make an effort to obtain a position on shore.

#### APPROPRIATIONS.

For purposes stated in another part of this report, we respectfully request a special appropriation for repairs in 1900.

The estimates for 1900 are as follows:—

For special repairs, . . . . .	\$15,000 00
For current expenses, . . . . .	50,000 00
For office expenses, . . . . .	5,000 00

The appropriations for the school for 1899, which are here accounted for, were:—

#### *Current Expenses.*

Appropriation, . . . . .	\$50,000 00
Expended:—	
Pay roll, . . . . .	\$24,695 76
Provisions, . . . . .	12,493 55
Instruction, . . . . .	783 63
Seamanship department, . . . . .	1,519 88
Engineer department, . . . . .	2,465 77
Miscellaneous, . . . . .	7,896 79
Total amount expended, . . . . .	49,855 38
Balance unexpended, . . . . .	\$144 62

*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
Expended: —	
Salaries, . . . . .	\$3,192 00
Commissioners' expenses, . . . .	755 20
Miscellaneous, . . . . .	842 90
	<hr/>
Total amount expended, . . . . .	4,790 10
	<hr/>
Balance unexpended, . . . . .	\$209 90

Respectfully submitted,

GEO. E. BELKNAP,

REAR ADMIRAL, U. S. N. (Retired), LL.D.,

*Chairman,*

ROBT. B. DIXON, M.D.,

HON. JOHN READ,

*Board of Commissioners.*

Boston, Jan. 2, 1900.



## LEGAL AUTHORITY FOR THE SCHOOL.

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AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

### AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

## [CHAPTER 402.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,

said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.  
[Approved June 11, 1891.]

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship *Enterprise* for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and



# ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

# MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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JANUARY 1, 1901.

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BOSTON :  
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,  
18 POST OFFICE SQUARE.  
1901.

*C.*





# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1900.

### THE WORK OF THE YEAR.

During the past year the school has maintained a high degree of efficiency under the able superintendence of Lieut. Com. Edward M. Hughes, U. S. Navy, who was ordered by the Navy Department to relieve Com. F. M. Wise in command of the "Enterprise" on April 21, 1900.

The average number of cadets in the school from Jan. 1, 1900, to Jan. 1, 1901, has been 108, which is the largest average in its history. The Board of Commissioners, however, is compelled this year to again call the attention of the Legislature to a fact mentioned in the last annual report of the commission; i.e., that it has been found necessary this winter, as it was last year, to lay off without pay a number of petty officers for the months of November and December, and also to unduly extend the autumn vacation, thus being obliged to close the school to avoid a deficit. And, to quote from last year's report, only "by these necessary but undesirable economies has the commission brought its financial year to a close with a nominal credit balance."

Impressed with the necessity for a moderate increase in the appropriation for carrying on the work of the school satisfactorily and maintaining its efficiency, the commissioners have asked from the Legislature for the year 1901 that their appropriation for current expenses may be increased from \$50,000 to \$55,000.

## REPAIRS TO THE "ENTERPRISE."

On March 13, 1900, the Governor approved a bill passed by the Legislature for needed repairs to the "Enterprise." The Board at once took action upon bids received from three firms for the necessary work, and awarded the contract for the ship building work to the firm of D. D. Kelly & Son, East Boston, and to Edward Kendall & Sons, of the Charles River Iron Works, for the repairs needed on the engines; both firms being the lowest bidders. This work was satisfactorily finished within the contract time, so that the "Enterprise" was enabled to sail on her summer cruise on June 30, about one month later than her usual time.

It was found necessary, in addition to the other repairs, to replace a number of the ship's sails and a portion of her rigging, and these renewals, amounting to the sum of about \$2,700, were paid for from the regular appropriation for current expenses.

Under the terms of the agreement by which the U. S. S. "Enterprise" was loaned to the Commonwealth of Massachusetts for the purpose of a nautical training school, the commissioners of the school are under an agreement to hold the said ship in trust for the United States government and to keep her in good order, it being understood that the repairs to the ship shall be only such as the reasonable use and wear thereof for the purpose of said nautical training school may impose.

## INCREASED APPROPRIATION.

In the proper maintenance of the school, it will probably always be necessary for the commissioners to expend some portion of their appropriation for current expenses in certain outlays for renewal of the equipment of the "Enterprise," as special appropriations could not be obtained or made available in keeping the ship in proper repair when at sea or in foreign ports.

In consequence of the limited number of officers available for duty, the Navy department has withdrawn the engineer, surgeon and one watch officer formerly detailed to the "Enterprise," and has thereby necessitated the employment of civilians in their places, at a large increase in the pay roll.

The number of cadets in the school has also increased, and in view of these several facts the Board finds it necessary to ask for an increase in the appropriation for current expenses for the year 1901.

### THE SUMMER CRUISE.

As the story of the last summer cruise of the U. S. S. "Enterprise" is so clearly and comprehensively told by Lieut. Com. Edward M. Hughes, U. S. Navy, superintendent of the school, in his report to the commissioners, it is here substantially reproduced for the information of the Legislature : —

### SUPERINTENDENT'S REPORT.

Boston, Nov. 26, 1900.

I have the honor to submit the following report of the working and general condition of the Massachusetts Nautical Training Ship and School, covering the time from my assuming command of the "Enterprise" and the duties of superintendent of the school to the present date ; touching mainly, however, upon the recent practice cruise, brought to a close on the 16th ultimo.

### *Completed Repairs.*

Upon joining the school, April 21, 1900, I found the "Enterprise" undergoing extensive repairs. In general, these comprised the renewal of all defective parts of the top sides from the copper line up, including frames, planking, channels, bulwarks, etc. ; a new spar deck, with necessary repairs to beam ends, hatch combings, etc. ; caulking and paying seams of all new work ; a new bridge and bridge ladders ; four new boat davits ; twenty-four additional lockers for the accommodation of an increased number of cadets ; new installation of sanitary water-closets for cadets ; repairing defective iron work, alow and aloft ; replacing defective spars ; new outfit of fire hose ; new bed-plate for steam capstan ; repairs to main engines ; virtual renewal of system of piping in engine and boiler rooms ; new engine room and boiler room floor plates ; new telescopic funnel ; three sets new fire grates for main boilers ; repairs to steam cutter, etc.

Before sailing, new boats were received from the Boston Navy Yard, as follows ; one sailing launch, two cutters, one whale boat and one dinghy, while the gig was repaired and placed in good order. This renewal of the ship's outfit of boats was without cost to the Commonwealth.

A number of old sails were replaced by new ones just before the ship's departure for Europe. A foresail and two lower topsails were furnished on the Board's requisition, by the equipment department, Boston Navy Yard, which were paid for by the commission; and a jib and suit of top-gallant sails and royals were made on board ship, the services of the cadets being utilized in this work so far as practicable, thus reducing the cost of these sails considerably.

*Summer Cruise.*

The itinerary of the cruise, approved by the Board of Commissioners, and the dates of actual arrival at and departure from the various ports, here follows:—

Ports.	Itinerary.	Actual Performance.
Leave Boston, Mass., . . .	June 30, 1900	June 30, 1900
Arrive Southampton, Eng., . .	July 25, 1900	July 21, 1900
Leave Southampton, Eng., . .	Aug. 1, 1900	July 29, 1900
Arrive Havre, France, . . .	Aug. 2, 1900	July 30, 1900
Leave Havre, France, . . .	Aug. 14, 1900	Aug. 12, 1900
Arrive Gibraltar, . . .	Aug. 21, 1900	Aug. 20, 1900
Leave Gibraltar, . . .	Aug. 24, 1900	Aug. 26, 1900
Arrive Tangier, Morocco, . .	Aug. 24, 1900	Aug. 26, 1900
Leave Tangier, Morocco, . .	Aug. 26, 1900	Aug. 27, 1900
Arrive Funchal, Madeira, . .	Aug. 31, 1900	Aug. 30, 1900
Leave Funchal, Madeira, . .	Sept. 6, 1900	Sept. 6, 1900
Arrive Marblehead, Mass., . .	Oct. 10, 1900	— —
Arrive Boston, Mass., . . .	— —	Oct. 16, 1900

The following table exhibits the time under sail, the time under steam (including, also, the time under steam and sail), the distance run (by observation) and the average daily runs:—

	Under Sail.		Under Steam.		Distance (Knots).	Average Daily Runs (Knots).
	Days.	Hours.	Days.	Hours.		
Boston to Southampton, . .	16	16.5	4	10.2	3,054	145.7
Southampton to Havre, . .	—	—		13.5	122	216.7
Havre to Gibraltar, . . .	5	1.1	3	9.7	1,231	154.0
Gibraltar to Tangier, . . .	—	—		4.8	31	—
Tangier to Madeira, . . .	2	9.6		15.2	607	202.0
Madeira to Boston, . . .	35	4.1	4	11.7	4,056	101.5
Entire cruise, . . .	59	7.3	13	17.1	9,101	124.7
Ship under way, . . .	73 days .4 hours.				—	—



With the exception of a short but severe cyclone off Bermuda on October 9, and much rain, mist and fog during the last half of the passage to Southampton, fine weather was experienced throughout. During the cyclone above referred to, two storm staysails were split and the second cutter was lost. The cutter's back was first broken, as a result of dipping herself full of water several times, and, the forward fall becoming unhooked, her bow fell and it became necessary to cut her adrift. The following abstract from the ship's log will convey an idea of the character of the storm (the readings of the barometer are corrected for instrumental error and temperature) : —

DATE.	Time.	Wind.	Force.	Barometer.
October 6, . . . .	Noon, .	S. — S. E. S., .	4	30.04
October 7, . . . .	Noon, .	S. E. — E. S. E., .	4	30.04
October 8, . . . .	Noon, .	S. E. — E. S. E., .	4	30.04
October 8, . . . .	Midnight,	S. E. — E. S. E., .	5-6	29.96
October 9, . . . .	8 A.M., .	E S E., . . . .	7-9	29.69
October 9, . . . .	Noon, .	E. S. E., . . . .	7-10	29.44
October 9, . . . .	1 P.M., .	E. by S., . . . .	8-10	29.32
October 9, . . . .	2 P.M., .	E. by S., . . . .	9-11	29.04
October 9, . . . .	3 P.M., .	E. N. E., . . . .	9-11	28.86
October 9, . . . .	4 P.M., .	N. E., . . . .	8-10	28.80
October 9, . . . .	5 P.M., .	N., . . . .	10	28.68
October 9, . . . .	7 P.M., .	N. W., . . . .	10	29.18
October 9, . . . .	Midnight,	W., . . . .	9	29.58

At 8.20 A.M., October 9 (fires being in starboard boiler for distilling purposes), started fires in port boiler as a precautionary measure; steam, however, was not used during the storm. Preparations were made for using oil to smooth the sea, but such use did not become necessary. Suitable oil for this purpose should be carried; as it was, a mixture of cylinder oil and kerosene had to be relied upon.

#### *Physical Condition of Cadets.*

The health of all on board during the cruise was generally excellent. For cooking and drinking, only water distilled on board was used. The cadets (keeping watch and watch on deck, and three watches in engine and boiler rooms) had ample exercise and an unlimited supply of fresh air; they also were sent over the mast-head daily.

The following table shows the changes in average weight, height and other measurements of the cadets during the cruise : —

	July 2-3, 1900.	Oct. 14-16, 1900.	Change.
Height, . . . .	5 ft. 8.46 in.	5 ft. 8.55 in.	.09 in.
Weight, . . . .	133.03 lbs.	135.07 lbs.	2.04 lbs.
Chest, . . . .	32.07 in.	32.32 in.	.25 in.
Chest expansion, . .	2.16 in.	2.44 in.	.28 in.
Fore arm, . . . .	10.02 in.	10.00 in.	.02 in.
Arm, . . . .	11.20 in.	11.34 in.	.14 in.
Thigh, . . . .	20.01 in.	20.11 in.	.10 in.
Calf, . . . .	13.16 in.	13.24 in.	.08 in.

### *Notes of the Cruise.*

Liberty to go ashore and short leaves of absence in foreign ports were freely granted to the cadets. In occasional instances, in one port or another, cadets were restricted to the ship as a punishment for marked infractions of the regulations of the school, but in no case did any cadet fail of an opportunity to visit at least three of the five ports at which we called. All of the boys who were prepared to meet the expenses of the trip were permitted to visit London or Paris, and some went to both places. All of those whom I saw in either city appeared neat, well dressed and well behaved.

We fell in with the Pennsylvania nautical training ship "Saratoga" in the ports of Southampton, Gibraltar and Funchal. In the last-named place we also encountered the New York nautical training ship "St. Mary's." The intercourse between the pupils on board the three ships was most friendly. In Funchal several base-ball games were played between nines from the "Enterprise" and "Saratoga" (in which our cadets were the victors), and a race pulled by a boat from each of the three ships, our boat coming in a good second.

The visits of ceremony common in naval practice were made by me upon arrival in each port, and as promptly returned. Our reception in Gibraltar seemed particularly cordial, and was referred to in my report dated Tangier, Aug. 21, 1900

The state of discipline maintained on board was in the highest degree satisfactory, and the general bearing and conduct of both cadets and crew extremely good. The attention of the Board of Commissioners is invited to the fact that the conduct reports for the cruise, submitted shortly after our return, show no cases of drunkenness and but few of cigarette smoking. The school is exceptionally fortunate in having the services of so efficient a man as Mr. O. E. Andrews, the ship's master-at-arms. The only

exceptions to the general good conduct of those on board have already been the subject of reports to the commissioners of the school, and the offending cadets have since the return of the ship had their connection with the school severed.

Practical exercises in seamanship, navigation, steam engineering and electricity were carried on from the beginning of the cruise.

Regular studies in navigation were carried on throughout and the study of arithmetic for a part of the time, when the services of the instructor were diverted that he might effectually supervise the writing of daily journals by the cadets. Upon leaving Madeira to run down the trades, routine afternoon studies in steam engineering and electricity were instituted and continued to the end.

Owing to the greater number of the cadets being in the engineering class, it was impossible to employ all of this class in the engine, boiler and dynamo rooms at the same time; but pains were taken that during the fourteen days that the ship was under steam each member of this class should have a full and fair share of engineering work. Also, owing to the limited number of seaman cadets, the services of such of the engineering cadets as were not on the engineer's detail, for the time being, were utilized on deck in the practical work of the ship.

The provisions placed on board for the subsistence of the cadets and crew met every requirement as to quantity, quality and variety, and during the entire cruise not a complaint was heard regarding either the food or the way in which it was cooked and served. Much credit for this happy state of affairs is due to Mr. Sweetman, the ship's steward, who showed great ability and carefulness in the management of his department.

*Cost of Rations on Cruise, 1900.*

Cost of sea stores purchased in Boston, . . . . .	\$3,848 71
Cost of provisions purchased abroad, . . . . .	1,279 82
	<hr/>
Total expenditure, . . . . .	\$5,128 53
Value of provisions remaining, end of cruise, . . . . .	\$327 54
Value of provisions issued to officers' messes, . . . . .	37 10
	<hr/>
	364 64
	<hr/>
Cost of subsistence on cruise, . . . . .	\$4,763 89
Number of rations issued, . . . . .	15,437
Cost of one ration, . . . . .	30.86 cents.

*Expenditure of Coal on Cruise, 1900.*

	Coal consumed.	
	Tons.	Lbs.
Ship steamed 13 days 17 hours. . . . .	176	-
Distiller ran 45 days 16 hours. . . . .	40	1,341
Dynamo ran 14 days 8 hours. . . . .	7	1,595
For heating ship. . . . .	1	180
For banked fires. . . . .	7	1,711
For cleaning fires. . . . .	4	1,781
For priming furnaces. . . . .	4	1,060
Getting up steam. . . . .	14	378
For machine shop, lathes, etc. . . . .	4	1,020
Total consumption. . . . .	261	108

Owing to the unusually high price charged for coal on the other side of the Atlantic (32 shillings per ton in Southampton and 33 shillings per ton in Gibraltar, trimmed in the bunkers), great economy in its expenditure was practised. To this end the electric lights were habitually shut down at 10 p.m., and on the passage home from Madeira the dynamo was not run at all, the ship being lighted by oil lamps.

In closing this section of my report, which refers mainly to the recent cruise of the "Enterprise," I wish to testify to the patience, zeal and efficiency of Lieutenants Coontz and Bertolette and Mates Nelson and Tyrrell in the discharge of their varied and arduous duties. Besides keeping strict watch as officers of the deck four hours out of each twelve, Lieutenants Coontz and Bertolette acted as executive officer and navigator, respectively, and, in addition, carried on the instruction of cadets in seamanship and navigation six days in each week. Mates Nelson and Tyrrell were hard-working and faithful, keeping watch and watch throughout the cruise, always on their feet when on deck, frequently taking charge of the deck during the captain's watch, and superintending the instruction of the boys in murlin spike seamanship, sailmaking, etc. Tyrrell and Nelson are painstaking and strict in their dealings with the cadets, and are respected by them. Mr. Colcord, engineer of the ship, was not only efficient in his own department, but is also an excellent instructor in the theory and practice of steam-engineering. Electrician Collins, a graduate of the school, is an excellent and valuable man in the place he fills.



*Needed Repairs.*

The gun deck is badly worn, and in many places leaky, but it will last for another year, with some caulking from time to time. Provision was made for patching this deck when the ship was repaired last spring, but the appropriation was exhausted before reaching this work.

Before the ship makes another cruise, a boat will be required to take the place of the second cutter, lost in the gale off Bermuda on October 9.

A new scuttle-butt is needed. It is suggested that this should be made of galvanized iron.

The following, or the canvas with which to make them, will be necessary before the ship will be in condition to make another cruise: one mainsail (the one on board completely worn out), one fore upper topsail (the one on board seven years old), one main upper topsail (the one on board seven years old), one main try-sail (the one on board badly worn and burned) one spanker (the one on board badly worn), one main topmast staysail (the one on board worn out), one mizzen topmast staysail (the one on board worn out), one fore storm staysail (the one on board worn out), one hundred and twenty hammocks, one set boat covers (excepting gig's which is good), one poop awning (worn out), one fore-castle awning (worn out), two windsails (worn out), two dinghy's sails. Some of these can be made on board during the winter.

*Miscellaneous Suggestions.*

It is recommended that the weekly leave of absence of cadets be granted from 4 P.M., Friday, to 7 P.M., Sunday.

For service on the summer cruise it is extremely desirable that strong, seasoned firemen and a good machinist be carried. On the recent cruise it was found that the firemen (all three graduates of the school) were too light and were too easily exhausted by their work, while the machinists were habitually so sea-sick as to be of little service in the engine room, even in moderate weather. While good men may cost a little more, it is submitted that employment would prove economical in the long run.

In view of their responsible duties and the noticeably careful and satisfactory manner in which they perform them, and considering the remarkable way in which they have obtained and retained the good-will and respect of the pupils, it is respectfully recommended that, after Jan. 1, 1900, an increase of at least five dollars per month be made in the pay of the following chief petty officers: the two mates, the master-at-arms and the ship's steward.



*Personnel.*

The following officers are now attached to the ship: Lieut. Com. E. M. Hughes, U. S. N., commanding officer and superintendent; Lieut. R. E. Coontz, U. S. N., executive officer and instructor in seamanship; Lieut. L. C. Bertolette, U. S. N., navigator and instructor in navigation; Lieut. Chas. A. Foster, U. S. N. (retired), instructor in mathematics; Mr. W. A. Colcord, engineer and instructor in steam engineering and electricity; Mr. A. E. King, captain's clerk.

The changes in the officers and instructors of the school during the past year have been as follows: April 21, 1900, Com. F. M. Wise, U. S. N., detached; April 21, 1900, Lieut. Com. Edward M. Hughes, U. S. N., reported for the command of the "Enterprise," and as superintendent of the school; May 14, 1900, Lieut. Geo. G. Mitchell, U. S. N., detached; Oct. 31, 1900, Dr. E. L. Saunders, detached; Nov. 21, 1900, Lieut. Chas. A. Foster, U. S. N. (retired), reported.

All of which is respectfully submitted.

EDWARD M. HUGHES,  
*Lieut. Com., U. S. Navy, Superintendent.*

Surgeon John W. Baker, U. S. N. (retired), has been appointed medical officer and reported for duty Jan. 1, 1901.

## ACCIDENT TO CADET QUINN.

On October 11, at 10.20 P.M., while on duty as a fireman in the fire room of the "Enterprise," Cadet J. J. Quinn placed his right hand by accident in the fan of the blower engine, which was guarded by an iron frame work, and sustained such injuries that amputation of the fore arm became necessary. Upon the arrival of the ship at Boston, on Oct. 16, 1900, Cadet Quinn was at once removed to the Malden hospital for treatment. On October 22 Cadet Quinn was discharged from the hospital, and at the request of his father was honorably discharged from the school.

A careful investigation was made, the day following its occurrence, into the circumstances of this lamentable accident, by a board of officers ordered by Lieutenant Commander Hughes, but no blame or responsibility was found to attach to any person in connection with the incident.

## STATISTICS OF CADETS.

*Cadets admitted during 1900.*

Number in the school Jan. 1, 1900:—			
Seamanship class, . . . . .	. . . . .	38	
Engineer class, . . . . .	. . . . .	70	
Total, . . . . .	. . . . .		108
Applications received, 1900, . . . . .			113
Failing to appear for examination, . . . . .	8		
Awaiting examination, . . . . .	2		
Unsatisfactory recommendations, . . . . .	1		
Applicants examined, . . . . .	102		
	113		
Examined, . . . . .	. . . . .	102	
Failed to pass mental examination, . . . . .	49		
Failed to pass physical examination, . . . . .	1		
Failed to pass mental and physical examinations, . . . . .	3		
Passed examinations, . . . . .	49		
	102		
Passed examinations, . . . . .	49		
Re-examined mentally, and passed, . . . . .	26		
Readmitted, . . . . .	2		
Post-graduates, . . . . .	3		
	80		
Unable to qualify after passing examinations, . . . . .	2		
Total number admitted to school during 1900, . . . . .	. . . . .		78
Total number connected with school during 1900, . . . . .	. . . . .		186
<i>Cadets withdrawn during 1900.</i>			
Total number regularly graduated, . . . . .	. . . . .	50	
Seamanship class, . . . . .	14		
Engineer class, . . . . .	36		
	50		
Total number granted an honorable discharge, . . . . .	. . . . .	21	
Seamanship class, . . . . .	9		
Engineer class, . . . . .	12		
	21		
Total number graduated and honorably discharged, . . . . .	. . . . .	71	
Deserted, . . . . .	4		
Dismissed, . . . . .	1		
Dropped from the roll, . . . . .	9		
	14		
Total number dismissed, etc., . . . . .	. . . . .		
Total withdrawals during 1900, . . . . .	. . . . .		85
Number of cadets in the school Jan. 1, 1901:—			
Seamanship class, . . . . .	. . . . .	39	
Engineer class, . . . . .	. . . . .	62	
Total, . . . . .	. . . . .		101

## THE WINTER TERM.

The "Enterprise" is moored at the North End park, Boston, where she will remain during the winter term.

Instruction is now being given on board to 108 cadets, which is about the total number that the ship will accommodate.

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would be gratified to have them visit the "Enterprise" at the above-mentioned wharf on any day excepting Saturday and Sunday, when the cadets are absent on leave.

## OPINIONS REGARDING THE SCHOOL.

As furnishing some evidence of the public appreciation of this school, the following extracts from letters from parents or guardians, or from the graduates themselves, are given from a large number received and now on file in the office of the commissioners.

Mr. H. T. Lea of Lawrence has written to the commissioners as follows: "I wish particularly to express my appreciation of the training which my son, John B. Lea, is receiving on the 'Enterprise,' and to express also his gratification at the just manner in which the cadets are controlled, as well as the good food and care which they are receiving."

Graduate Cadet Frank C. Duntlin of East Weymouth says: "I have found the instruction in marine engineering received on board the training ship 'Enterprise' of the greatest value to me in pursuing my studies in that branch up to the present time. My intention is to enter the U. S. revenue cutter service as an assistant engineer. My present employment is fireman on board the U. S. revenue cutter 'Dallas,' where I enlisted April 2, 1898, for a term of three years."

Mr. Edward F. Gavagan of South Boston writes: "I thoroughly approve of the training school. I was an engineer cadet while on board the 'Enterprise' and was rated as chief machinist in the navy during the Spanish war. After-

ward was third assistant engineer on board steamer 'Admiral Dewey,' and am now first assistant engineer at the rope walk engine room, Charlestown Navy Yard."

Mr. Henry E. Walker of Vineyard Haven states: "I think my course on the U. S. S. 'Enterprise' has been of great benefit to me in my subsequent studies." He served eleven months in Company M, Eighth Mass. U. S. Volunteers, during the Spanish war, and is now in the class of 1903 at the Lawrence Scientific School, Cambridge, studying mechanical engineering.

Mr. Elton S. Jewett of Boston says: "I always take an interest in everything concerning the nautical training ship 'Enterprise.'" He served as quartermaster on board the steamer "Admiral Schley."

Mr. Wallace L. Gifford of Salem writes: "I think the training of your school is the best that can be obtained. All the graduates whom I have seen are manly looking and gentlemanly in their behavior."

Graduate Cadet Edward J. Cogan of Lynn says: "I am very well pleased with the school." Two weeks after graduating he obtained a marine engineer's license. After acting as engineer for the Lynn Steamboat Company, he was given charge of the steamer "Cornelia," where he is at present.

Mrs. Ellen M. Arnold of Cambridge writes: "My son, George B. Arnold, found his 'Enterprise' training of value." His first employment was in the American line. He is now engaged at the General Electric Company's works, learning to be an expert electrician.

The mother of Herbert E. Davis of Belmont says: "I have never regretted sending my son to the Nautical Training School; the training and instruction were excellent."

James O. Howard of Holliston says: "I shall always cherish the two years I spent in the Nautical Training School. It was the real starting-point in my life, and I owe my success to the instruction received on board the 'Enterprise.'" Served as quartermaster through the Spanish war. Is now on a farm with his brother, but writes: "I would much rather be at sea, but circumstances do not permit at present."

Herbert E. Fish of Mattapoisett says: "The two years'



training and instruction I received in the Nautical Training School have benefited me greatly."

Albert L. Warner of Waverley was in the first class of this school, and was transferred March 22, 1894, with two others, to go as ordinary seaman in the new steel ship "Dirigo" to Japan, that year of practical work to be considered as part of his course. Mr. Warner has since continued to follow the sea as second and first mate in various large sailing vessels, and has lately returned to Boston as mate of the five hundred ton schooner "Stephen G. Loud." He has also been quartermaster in the American line steamers "New York" and "St. Louis."

#### INFORMATION REGARDING GRADUATES OF THE SCHOOL.

In order to obtain a correct idea of the number of cadets who continue in their vocation, as seamen or engineers, after leaving the school, a circular was sent out during the past year to the parents of each of the graduates and ex-cadets, requesting that information be furnished the commissioners, relative, first, to the initial employment after graduating, and, second, in regard to the subsequent and present employment.

The printed blank enclosed with each circular was as a rule filled out with great care, and the replies were notable for their completeness. In many instances commendatory remarks relative to the work of the school were added. Two hundred and fifty-seven cadets have been heard from thus far. Two hundred and twenty-nine reported that they were still following the sea or were working as engineers, while only twenty-eight wrote that their positions were not obtained through having had the technical education gained on board the U. S. S. "Enterprise." It is probably safe to say that nine-tenths of the cadets continue in their chosen vocation after leaving the school.

Two graduates now hold a master's license, six have a first mate's license; seven are licensed as second mates; two hold a first-class pilot's license from Hampton harbor to Gay Head, including all bays and harbors between those points; and one holds a first-class pilot's license for Boston, Philadelphia



and Savannah River. Many cadets have entered the transport service as third and fourth officers, quartermasters or assistant engineers, one is third lieutenant and two are cadets in the U. S. revenue cutter service.

A graduate shipped as cadet on board the American bark "St. James," which sailed from New York to Hong Kong. In Hong Kong he was appointed second officer on board a revenue cutter steamer of the Chinese imperial maritime customs service, and shortly afterwards was promoted to first officer. Later he resigned from the customs service, purchased a schooner at Hong Kong and took her to Manila, where he is at present, sailing his own vessel.

Another cadet entered the United States Coast and Geodetic Survey service. He was transferred to the light-house service as second mate, and in due time was promoted to first mate. He was for a while last winter in temporary command of a light-house tender during the illness of the master.

A cadet shipped as able seaman on one of our largest coastwise steamers, and is now first officer of the steamer, being the youngest man ever employed in such capacity by the line.

The following cases taken from the record of the graduates which is kept on file in the office of the commissioners, will show the sea service which many of the graduates are experiencing:—

Quartermaster on board the steamers "Gate City," "Kansas City" and "Tallahassee" for over three years. Was second officer for fifteen months and first officer three months on board steamer "Gate City;" acting ensign in the navy from June 17, 1898, to Nov. 26, 1898; second officer on board steamers "Norman" and "Spartan" for five months; third officer and pilot on board S. S. "La Grande Duchesse" for nearly three months; now third officer of the large new steamship "Sierra," running between San Francisco and Australia.

Was engaged for nine months, immediately after graduating, in the halibut fishery on the Grand Banks; then sailed on board a four-masted schooner for a ten months' voyage to San Francisco; was second mate of a large new steel ship of 3,200 tons; during the last two years has been second mate in various coasting ves-

sels, and was acting mate of one large schooner; has obtained a mate's license, and is now mate of a new five-masted schooner of 2,200 tons.

Seaman cadet on board steamers of the American line; boat-swain's mate in the navy during the war with Spain; second mate of several full-rigged sailing vessels; now holds a mate's license, and is second or third officer in the employ of the Ward line.

Served as oiler in the engine room of the steamer "Shawmut" from November, 1896, to January, 1897; during the late war was second-class machinist, U. S. S. "Machias;" now a warrant machinist in the U. S. Navy on board the U. S. S. "Prairie."

Cadet and seaman on board steamers of the American line; quartermaster on board S. S. "Admiral Sampson;" second officer, S. S. "Concho," Mallory line; now third officer, U. S. transport "Sumner."

After graduating shipped on board a vessel sailing from New York to San Francisco; later, quartermaster; and now third officer on board a steamer of the Pacific Mail Steamship Company.

#### SUMMARY.

The following tables show the different capacities in which the cadets have been employed since leaving the school, and also the branches of service in which they have been engaged, as far as known by the commissioners: —

##### *Seamanship Class.*

Masters, . . . . .	4
First officers, . . . . .	6
Second officers, . . . . .	8
Third officers, . . . . .	4
Fourth officers, . . . . .	5
Chief quartermasters, . . . . .	2
Quartermasters, . . . . .	38
Cadets and seamen, . . . . .	40
Boatswain, . . . . .	1
Chief yeoman, . . . . .	1
Third lieutenant, U. S. revenue cutter service, . . . . .	1
Cadets, U. S. revenue cutter service, . . . . .	2
Fourth watch officer, U. S. Coast Survey service, . . . . .	1

##### *Engineer Class.*

Chief engineer, . . . . .	2
Engineers, . . . . .	4
Assistant engineers, . . . . .	6

Second assistant engineers, . . . . .	8
Third assistant engineers, . . . . .	5
Fourth assistant engineers, . . . . .	2
Engineer cadets and oilers, . . . . .	27
Firemen, . . . . .	9
Machinists (afloat), . . . . .	13
Machinists (on shore), . . . . .	14
Machinist and designer, . . . . .	1
Warrant machinists in U. S. Navy, . . . . .	2
Stationary engineers, . . . . .	8
Electricians, . . . . .	15
<hr/>	
Total, . . . . .	229

*Class of Vessels.*

Transatlantic steamers, . . . . .	45
Coastwise steamers, . . . . .	40
"Tramp" steamers and towboats, . . . . .	12
U. S. transports, . . . . .	15
Pacific coast steamers, . . . . .	4
U. S. Coast Survey steamers, . . . . .	8
U. S. revenue cutter steamers, . . . . .	6
Light-house service, . . . . .	2
Steam yachts, . . . . .	5
Sailing vessels, . . . . .	31
<hr/>	
Total, . . . . .	168

MEMBERSHIP OF THE SCHOOL.—GRADUATES FOR 1900.

*Spring Graduating Class, April, 1900.*

Adams, E. A., . . .	Engineer Cadet, . . .	Boston.
Bradford, G., . . .	Seaman " . . .	Duxbury.
Butterworth, E. P., . . .	Engineer " . . .	Foxborough.
Bohnenberger, C. J., . . .	" " . . .	Jamaica Plain.
Cronin, F. W., . . .	" " . . .	Worcester.
Connor, W. J., . . .	" " . . .	Worcester.
Conger, E. G., . . .	" " . . .	Wakefield.
Dow, H. F., . . .	" " . . .	Lynn.
Dempsey, C. J., . . .	" " . . .	Brockton.
Glover, W., . . .	" " . . .	Wilmington.
Gibbs, I. L., . . .	" " . . .	Nantucket.
Higgins, F. W., . . .	" " . . .	Cambridge.
Jones, A. H., . . .	" " . . .	Malden.
Lowe, C. E., . . .	" " . . .	Roxbury.
Marshall, E. P., . . .	" " . . .	North Easton.
Malloch, L. M., . . .	" " . . .	Everett.
McDonagh, H. H., Jr., . . .	" " . . .	Worcester.

O'Connell, D.,	.	.	Engineer Cadet,	.	.	Worcester.
Robbins, W. B.,	.	.	" "	.	.	Somerville.
Reidy, H. A.,	.	.	" "	.	.	Worcester.
Smith, E.,	.	.	Seaman "	.	.	Wellesley.
Tobin, J. F.,	.	.	Engineer "	.	.	Jamaica Plain.

*Autumn Graduating Class, October, 1900.*

Bailey, I. C.,	.	.	Seaman Cadet,	.	.	Kingston.
Bowser, R. E.,	.	.	Engineer "	.	.	North Abington.
Barry, J. H.,	.	.	" "	.	.	Randolph.
Cutts, W. R.,	.	.	Seaman "	.	.	Stoneham.
Cornwall, H. W.,	.	.	Engineer "	.	.	Melrose.
Cady, A. S.,	.	.	" "	.	.	Lowell.
Chandler, A. F.,	.	.	" "	.	.	Islington.
Cummings, A. M.,	.	.	Seaman "	.	.	Worcester.
Donahoe, J. J.,	.	.	Engineer "	.	.	Cambridge.
Ducey, J. F.,	.	.	" "	.	.	Boston.
Dewey, H. C.,	.	.	" "	.	.	Lynn.
Gilbert, J. H.,	.	.	Seaman "	.	.	Springfield.
Gately, J. E.,	.	.	" "	.	.	Marlborough.
Howley, J. W.,	.	.	Engineer "	.	.	Weymouth Centre.
Howes, J. S.,	.	.	Seaman "	.	.	Wood's Hole.
Knight, W. B.,	.	.	" "	.	.	Hull.
Lailer, W. F.,	.	.	Engineer "	.	.	Hyde Park.
McGourty, J. F.,	.	.	" "	.	.	Worcester.
Ormund, J. G.,	.	.	Seaman "	.	.	Kingston.
O'Toole, G. A.,	.	.	Engineer "	.	.	Boston.
Parker, E. N.,	.	.	Seaman "	.	.	Greenfield.
Plummer, C. G.,	.	.	Engineer "	.	.	Milton.
Parsons, C. G.,	.	.	Seaman "	.	.	Salem.
Rawdon, J. F.,	.	.	Engineer "	.	.	Worcester.
Sibley, W. R.,	.	.	" "	.	.	Worcester.
Tremblay, E. J.,	.	.	" "	.	.	Brockton.
Walton, H.,	.	.	Seaman "	.	.	Newton.

*Class to Graduate April, 1901.*

Bolton, W. R.,	.	.	Engineer Cadet,	.	.	Cambridge.
Coholan, J. J.,	.	.	Seaman "	.	.	South Boston.
Coburn, H. C.,	.	.	" "	.	.	Shrewsbury.
Glines, E. A.,	.	.	" "	.	.	Newtonville.
Harrington, C. D.,	.	.	" "	.	.	Cambridge.
Holden, M. H. L.,	.	.	Engineer "	.	.	Worcester.
Murphy, E. I.,	.	.	" "	.	.	Worcester.
Marshall, A. R.,	.	.	Seaman "	.	.	North Easton.
Patterson, R. A.,	.	.	Engineer "	.	.	Brighton.
Parsons, F. E.,	.	.	Seaman "	.	.	Kendal Green.
Richardson, G. W. W.,	.	.	Engineer "	.	.	Melrose.

Shattuck, D. H.,	Engineer Cadet,	Brockton.
Salles, A. W.,	Seaman "	Dorchester.
Warren, D. W.,	Engineer "	Beachmont.

*Class to Graduate October, 1901.*

Aborn, S. P.,	Engineer Cadet,	Dorchester.
Anderson, W. A.,	Seaman "	Gloucester.
Boyle, P. T.,	Engineer "	Worcester.
Bruce, G. H.,	" "	Gloucester.
Browne, F. A.,	" "	Westborough.
Bicknell, T. H.,	Seaman "	Melrose.
Cross, C. M.,	Engineer "	West Springfield.
Castle, A. E.,	" "	Methuen.
Castle, G. A.,	Seaman "	Lynn.
Crandall, C. H.,	" "	North Attleborough.
Driesner, G. F.,	Engineer "	North Attleborough.
Foss, J. W., Jr.,	" "	Amesbury.
Goffin, E. W.,	" "	Wood's Hole.
Hunson, O. C.,	" "	Gloucester.
Heintzeman, C. H.,	Seaman "	Brookline.
Jecko, Joseph,	Engineer "	Boston.
Kennedy, W. H.,	" "	Dorchester.
Kroh, H. A.,	" "	Boston.
Lea, J. B.,	" "	Methuen.
Mason, D. C.,	" "	Everett.
McDonald, R. S.,	" "	Boston.
Matheson, W. B.,	" "	Provincetown.
Maglathlin, W. R.,	" "	North Easton.
Quinn, J. E.,	Seaman "	East Weymouth.
Sackett, E. E.,	Engineer "	Lynn.
Scott, H. F.,	Seaman "	Uxbridge.
Tucker, P. E.,	" "	Dorchester.
Tucker, R. W.,	" "	Weston.
Went, T. B.,	" "	Brookline.

*Class to Graduate April, 1902.*

Butler, D. F.,	Engineer Cadet,	North Easton.
Boesch, H. E.,	Seaman "	Wakefield.
Cook, S.,	Engineer "	Nantucket.
Connor, W. H.,	" "	Boston.
Campbell, E. J.,	" "	Boston.
Chisholm, W. M.,	Seaman "	North Attleborough.
Connors, M. L.,	Engineer "	Dorchester.
Gardner, H. P.,	" "	Marblehead.
Holmes, E. K.,	Seaman "	Plymouth.
Hynes, J. J.,	Engineer "	Holyoke.
Hathaway, B. W.,	" "	Taunton.
Holbert, H. H.,	" "	Boston.



Jensen, A.,	Seaman Cadet,	Provincetown.
Kenny, W. J.,	Engineer "	Malden.
Luby, J. E.,	" "	New Bedford.
Lamb, G. C.,	Seaman "	North Attleborough.
McGuire, G. E.,	Engineer "	Halifax.
McKay, O. E.,	Seaman "	Provincetown.
Murphy, J. F.,	Engineer "	Worcester.
McCrillis, H. W.,	" "	Malden.
Mort, F.,	" "	North Adams.
Ruggles, L. G.,	" "	Neponset.
Rich, C. H., Jr.,	" "	North Adams.
Russey, R. B.,	" "	Cambridge.
Soule, B. F.,	Seaman "	Lynn.
Saunders, E. L.,	Engineer "	Brockton.
True, C. M.,	" "	Amesbury.
Wood, H. J.,	" "	Lawrence.
Ward, G. F.,	Seaman "	Plymouth.

*Class to Graduate October, 1902.*

Archie, A. P.,	Engineer Cadet,	Gloucester.
Aechtler, F. W.,	Seaman "	Brookline.
Butterfield, F. J.,	" "	Haverhill.
Bennett, J. E.,	" "	North Adams.
Chase, A. F.,	" "	West Harwich.
Crockett, G. E.,	Engineer "	Malden.
Connelly, W. B.,	" "	Holyoke.
Cushing, A. R.,	Seaman "	Dorchester.
Grandin, H. V.,	" "	Boston.
Gilson, W. B.,	Engineer "	Waltham.
Hart, A. W.,	" "	North Truro.
Jones, L. R. F.,	" "	South Hingham.
Lithgow, T.,	Seaman "	Boston.
Luscomb, B. R.,	" "	Nahant.
Luther, A. T.,	Engineer "	Swansea.
Marshall, J. H.,	" "	Gloucester.
Madden, E. J.,	Seaman "	Everett.
O'Connell, G. L.,	Engineer "	Worcester.
O'Reilly, W. I.,	Seaman "	South Boston.
Pierce, F. C.,	" "	Boston.
Parker, H. T.,	" "	Rockport.
Peterson, R. L.,	Engineer "	Plymouth.
Rydquist, C. H. A.,	Seaman "	Brockton.
Reidy, J. A.,	Engineer "	Boston.
Sturges, W. H.,	Seaman "	Melrose.
Spaulding, A. B.,	Engineer "	Peabody.
Seibert, F. C.,	Seaman "	Greenfield.
Stuart, E. G.,	" "	Lynn.
Trefethen, H. E.,	Engineer "	Merrimac.

Wood, W. H.,	.	.	Seaman Cadet,	.	.	Greenfield.
White, R. S.,	.	.	Engineer	"	.	Malden.
Whalen, M. J.,	.	.	"	"	.	Peabody.

### APPROPRIATIONS.

The appropriations for the school for the year 1900, which are here accounted for, were :—

#### *Current Expenses.*

Appropriation,	.	.	.	.	.	.	.	.	.	\$50,000 00
Expended :—										
Pay roll,	.	.	.	.	.	.	.	.	.	\$23,873 55
Provisions,	.	.	.	.	.	.	.	.	.	12,196 92
Text-books, instruments, etc.,	.	.	.	.	.	.	.	.	.	753 83
Seamanship department,	.	.	.	.	.	.	.	.	.	3,605 69
Engineer department,	.	.	.	.	.	.	.	.	.	4,228 24
Miscellaneous,	.	.	.	.	.	.	.	.	.	5,333 88
Total amount expended,	.	.	.	.	.	.	.	.	.	49,992 11
Balance unexpended,	.	.	.	.	.	.	.	.	.	\$7 89

#### *Office Expenses.*

Appropriation,	.	.	.	.	.	.	.	.	.	\$5,000 00
Expended :—										
Salaries,	.	.	.	.	.	.	.	.	.	\$3,365 00
Commissioners' expenses,	.	.	.	.	.	.	.	.	.	507 90
Miscellaneous,	.	.	.	.	.	.	.	.	.	962 95
Total amount expended,	.	.	.	.	.	.	.	.	.	4,835 85
Balance unexpended,	.	.	.	.	.	.	.	.	.	\$164 15

Respectfully submitted,

GEO. E. BELKNAP, *Chairman*,  
 REAR ADMIRAL, U. S. N. (Retired), LL.D.,  
 ROBERT B. DIXON, M.D.,  
 HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

BOSTON, Jan. 2, 1901.

## ADDENDA.

It has been suggested that three appointments to the Naval Academy, at Annapolis, be annually assigned (one each respectively) to the graduating classes of the three nautical training schools maintained by the States of Massachusetts, New York and Pennsylvania, on board the U. S. ships "Enterprise," "St. Mary's" and "Saratoga," such appointments to be open to the three young men (one from each school) who graduated at the head of their classes each year at these three schools, the second man on the lists to be considered as alternates.

In this connection it may be said that some years ago a law of Congress was enacted, granting such opportunities to the United States naval apprentices, and there are now names on the navy register of officers of high rank who obtained their appointments to Annapolis in such manner.

The following communication has been received by the commissioners from His Excellency W. Murray Crane:—

*Commissioners Massachusetts Nautical Training School.*

I beg to acknowledge the receipt of your communication of the 13th instant, embodying suggestions in regard to the possibility of obtaining from Congress three appointments, annually, to the Naval Academy at Annapolis, one each to be awarded to the graduating cadet standing at the head of his class in the three nautical training schools of Massachusetts, New York and Pennsylvania.

You inform me that this proposition is, it is understood, favored by Rear Admiral A. S. Crowninshield, Chief of Bureau of Navigation, Navy Department, and by the Board of Education of the State of New York; and it is evident that, if such an opportunity could be obtained for one of our cadets each year, it would be a very great stimulus to the corps in striving for a high standard of scholarship and a good conduct record.

In the interest of our Massachusetts Training School, I am pleased to give this proposition my endorsement, and will be glad to favor any plan which will bring the matter before Congress.

(Signed) W. MURRAY CRANE.

The commissioners of this school have taken action, in concert with the commissioners of the nautical training schools of New York and Pennsylvania, to bring this matter before Congress.

On Jan. 7, 1901, Hon. Samuel W. McCall of Massachusetts introduced the following bill in the House of Representatives, at Washington: —

IN THE HOUSE OF REPRESENTATIVES.

A BILL TO PROVIDE FOR ADDITIONAL APPOINTMENTS TO THE UNITED STATES NAVAL ACADEMY AT ANNAPOLIS.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:*

SECTION 1. Additional appointments to the United States Naval Academy at Annapolis shall hereafter be made each year, by the president, of the following persons: The cadet or student standing first in the graduating class of that year in the nautical training school of every state in which such a school is now or hereafter maintained at the expense of the state and under its direction. The cadet or student ranking second in his class shall be designated as alternate, and shall receive the appointment in case the cadet standing first is unable or unwilling to accept or fulfil it; and in like manner the cadet ranking third shall be an alternate for the cadet ranking second.

SECTION 2. This act shall take effect upon its passage.

GEO. E. BELKNAP, *Chairman,*  
*Board of Commissioners Massachusetts Nautical*  
*Training School.*





# LEGAL AUTHORITY FOR THE SCHOOL.

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AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

## [CHAPTER 402.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows :*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,

said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.

[*Approved June 11, 1891.*]

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship *Enterprise* for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and

section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council ; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

### MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

#### *Establishment.*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war Enterprise, as a vessel suitable for the purpose.







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TENTH ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

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JANUARY 1, 1902.



BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,  
18 POST OFFICE SQUARE.

1902.

*W.*



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1901.

### THE WORK OF THE YEAR.

During the year ending Dec. 31, 1901, the work of the Nautical Training School has progressed in a satisfactory manner. The number of cadets has been fully up to the average standard of the school, and the class of students received has been somewhat higher than heretofore.

During the winter months the "Enterprise" was moored at the wharf of the North End Park, where the regular routine work of the school was pursued, which included, in addition to theoretical studies, practical instruction in mechanics and engineering, as well as in seamanship and navigation.

### REPAIRS.

Needed renewals to the outfit of the "Enterprise" were made during the spring, which included sails, study tables, blackboards, benches, an engine lathe and Crosby indicator, etc., the expense amounting in all to about \$2,800. A new gun-deck will be required for the ship within a year, and other repairs, at an estimated outlay of \$2,500.

## THE SUMMER CRUISE.

Early in May the "Enterprise" was cleared of her whardeck-house, her sails were bent, rigging overhauled, and the ship was fitted for sea. This work was all done by the cadets, aided by the crew.

On May 16 the commissioners visited the "Enterprise" and carefully inspected the ship and the cadets, finding everything in excellent condition.

On May 18 the "Enterprise" left the wharf and anchored in the harbor, and, after taking stores on board, she sailed on June 1 on her summer cruise.

In preparing the itinerary for the summer cruise of the "Enterprise" for 1901, the commissioners departed from the usual custom and arranged to send the ship into the North Sea and the Baltic, touching in turn at Leith, Scotland; Copenhagen, Denmark; Cronstadt, Russia; Antwerp, Belgium; Gravesend, England; Gibraltar; and Funchal, Madeira. This cruise was estimated to be four months in duration.

The following extracts from the interesting report of Commander Edward M. Hughes, U. S. Navy, will give a fair idea of the summer cruise of the "Enterprise:" —

Leaving Boston about 5 P.M. on Saturday, June 1, the ship proceeded to sea, bound for Leith, via the north and east coasts of Scotland. The passage was made in about twenty-five days and sixteen hours, actual time, the anchor having been dropped in Leith Roads at 6.38 o'clock on the morning of the 28th of June. The track, rather devious for the first fortnight, was to the eastward until longitude 49 degrees was reached, when a general north-easterly course and good runs were made, the ship passing between the Shetland and Orkney islands.

Much fog was encountered until clear of the Newfoundland banks, and again in the vicinity of the Shetlands. The only land seen until we were to the eastward of the Orkneys was Fair Isle, our intended landfall. Indeed, on account of possible currents and the fog, I at one time had just changed the course to go entirely around the Shetlands, when a fortunate observation was obtained from which a course could be shaped to go between the two groups of islands. Over half the passage was occupied in getting to the eastward of longitude 45 degrees. This was due to



light breezes and some easterly winds. Steam was used for two days after leaving Boston, for nine hours on June 13, and for the last two days of the passage, the ship reaching Leith with forty tons of coal in the bunkers, having consumed eighty tons for all purposes en route.

A feature of the passage was the length of days after getting well to the northward, and it looked odd to see the cadets of the "watch on deck" curled up on the lee side of the quarter-deck, under their tarpaulin, in broad daylight, standing by for a call which no doubt would have found most of them "all abroad."

The day after arriving in Leith Roads the vessel moved into one of the docks, the use of which was given free on account of our character as a public vessel. We were given a very good berth in the Edinburgh dock, which is the one farthest from the entrance. Leith Roadstead is very uncomfortable, with easterly winds, and it would have been impracticable for this ship to have lain there and given the boys liberty or gotten them back to the ship with any certainty as to time. In Leith each watch of cadets was given forty-eight hours' liberty. The conduct of the cadets was very good, and they have shown a very commendable spirit of willingness and good temper, which leaves little to be desired. On the cruise we were fortunate in having smooth seas for the first ten days or so, enabling the boys to get fairly on their sea-legs before meeting bad weather.

We left Leith docks at 1 P.M. on July 4, ship dressed with ensigns at each mast-head, and after hoisting our boats outside, proceeded at once for the port of Copenhagen. Our flags were kept flying until the fog shut in the town.

On the passage to Copenhagen, on the afternoon of July 5, we passed the German kaiser's yacht "Hohenzollern," flying the imperial standard, bound to the northward. The "Hohenzollern" was accompanied by a corvette of the "Irene" class. When just past us, the imperial yacht dipped her ensign to us, which unexpected courtesy was promptly returned. Very early on the morning of the same day, July 8, we passed three German torpedo boat destroyers, also bound north.

In Copenhagen we found the United States training ship "Hartford" moored to the buoy next to the one assigned us. She had been in port for a week or ten days. She left for Stockholm on July 13, a few hours before our departure for Petersburg. During our stay in Copenhagen the weather was exceedingly fine, though somewhat warm. While in the Danish capital I made the usual official calls upon the United States chargé d'affaires, Danish minister of marine, admiral, commandant of the dock yard,

captain of the station ship, captain of the port, and the prince regent.

We left Copenhagen at noon on July 13, and reached St. Petersburg at 5 P.M. on July 18. On the 18th we were detained at anchor in Cronstadt from 7.30 A.M. until 2 P.M., awaiting permission to proceed and an assurance that a berth had been reserved for us in the narrow waters of the Neva at St. Petersburg. The weather experienced in the Baltic and the Gulf of Finland was very fine. The winds, however, or the lack of them, permitted but little sailing to be done. In the Baltic calms and light northerly airs were found (except for a few hours of the 14th and 15th), and in the Gulf were encountered light easterly winds. The vessel was under steam throughout, save from 5 A.M. of July 14 to noon of July 15, when she was under sail alone. A pilot was taken, both in and out, between Cronstadt Roads and Cronstadt, and Cronstadt and St. Petersburg. The Russian admiralty office furnished a tug to help moor us. We were given an excellent berth close up to the Nicholas bridge, near the centre of the city, mooring head and stern to buoys, and with one anchor down.

On the afternoon of July 19 the German training ship "Charlotte" came up and moored just below us. She carried a crew of about five hundred men and fifty naval cadets. Prince Adelbert, the third son of the German kaiser, who is a cadet on board, paid a short visit to the czar at Peterhoff on Sunday afternoon, July 21, and on the 23d instant the czar visited the German ship, in honor of which event both the "Charlotte" and the "Enterprise" full-dressed ship with flags, rainbow-fashion, and manned yards and rail respectively.

While lying in Cronstadt, I was boarded by officers representing the following: Vice Admiral Messer (acting governor of Cronstadt), Rear Admiral Kasherininoff (president of trial board), and the commanding officers of the imperial yacht "Polar Star" and the Grand Duke Alexis' yacht, respectively. I made calls on these officers, receiving in turn calls from the commanders of the yachts. The governor was absent, and Admiral Kasherininoff was on the point of leaving Cronstadt on duty. I also called on our consular representative at Cronstadt.

From Copenhagen I instituted inquiries regarding the tolls for passing through the Kiel ship canal. I received answers to my letters while in St. Petersburg, and was so impressed with the saving, both in time and money, that would result in leaving the Baltic via the canal, that I arranged to go to Holtzenau (near Kiel) with that end in view. The time required to pass from the Baltic to the Elbe is about eight hours. The distance saved is two hun-

dred and fifty miles, all of which would doubtless have to be made under steam.

We left St. Petersburg on July 25, with about one hundred tons of coal on board, and Holtenau, the Baltic entrance to the Kaiser Wilhelm ship canal, was reached at 11 P.M. on July 29. As we approached Holtenau, we passed several squadrons of torpedo boats and destroyers engaged in manœuvring, night signalling, etc. In Kiel harbor, distant some two or three miles from our anchorage, were the German men-of-war "Moltke" and "Stoch." Official calls were exchanged with the commanding officers of these vessels, and I also called upon Admiral Von Kohster, commanding the station, and upon the captain of the port. Commander W. H. Beehler, U. S. N., our naval attaché at Berlin, came down to Kiel upon my arrival to call upon us and upon the U. S. S. "Hartford," which arrived from Stockholm on July 30.

We left Holtenau on the morning of July 31 for the North Sea, via Kaiser Wilhelm ship canal, entering the Holtenau lock at 5.35 A.M., and leaving the canal at Brunsbützel at 4.15 on the afternoon of the same day, the passage consuming about ten hours, including several short stops en route. The expense incurred, pilotage, tolls, clearance, telegraphing, etc., was one hundred and seventeen dollars; but the passage via the canal effected a saving of two hundred and fifty miles of distance, which, with coal at six dollars per ton, made it seem economical to use it.

We arrived at Antwerp at 5.20 P.M. on August 2, mooring just abreast the cathedral near the centre of the city. A pilot was taken from the sea to Flushing and from Flushing to Antwerp, also between these points when outward bound. We left Antwerp at 10 A.M. on August 10, anchoring for an hour or two off Flushing to wait for the weather to declare itself. While waiting at this point the king and queen of England arrived in the royal yacht, escorted by two British cruisers, being on their way to attend the funeral of the late Empress Augusta of Germany. We half-masted our colors and dressed ship with mast-head flags, following the motions of the English vessels.

Crossing the English channel on the night of August 10, we picked up a Gravesend pilot off Margate on the following morning, and at 5.35 P.M. of August 11 moored to a buoy at Gravesend, thoughtfully reserved for us by Mr. Petherick of the U. S. Despatch Agency, London. The U. S. S. "Hartford" arrived at Gravesend from Kiel on the evening of August 15. While in Gravesend liberty was given freely, and those cadets who were provided with the means had opportunities to visit London. A theatrical entertainment was given the cadets in Gravesend through the



kindness of the mayor and the manager of the theatre. While in Gravesend we were granted the privileges of the Thames Yacht Club, and were called upon by the army officers stationed in the vicinity, all of which was duly acknowledged. In London I called upon our ambassador, Mr. Choate, who received me very cordially.

We left Gravesend for Gibraltar on August 18. Pleasant weather was experienced in the bay of Biscay and on the passage, but light airs and moderate to light easterly winds prevailed, so that much steaming had to be done. We anchored off Gibraltar at 4.40 P.M. on August 29. For the last part of the passage the same conditions prevailed that we found a year ago, — calms and a long easterly swell after passing Cape St. Vincent, and a strong Levanter in the strait. On the morning of the 29th we passed the British Mediterranean squadron (twenty-five vessels in all, including torpedo boat destroyers), bound out to meet the channel squadron off St. Vincent, after which they were to engage in fleet manœuvres. The U. S. ships "Saratoga" and "Castine" were found in Gibraltar on our arrival there. The Pennsylvania schoolship "Saratoga" was to leave for Tangier a few days after us, and the "Castine" sailed for Philadelphia on Saturday, August 31. The usual calls were made and returned in Gibraltar.

We left Gibraltar for Madeira at 10.13 A.M. on September 1, and arrived at Funchal at 11.30 P.M. on September 6, after a passage during which nothing but light airs and head winds were encountered.

I think the cruise was made as economically as possible, considering the length, the number of ports visited, the fact that we have distilled all our drinking water, etc. Boat sailing has been practised in nearly every port.

We were all shocked to learn of the probably successful attempt to assassinate President McKinley, which news came a day or two after our arrival at Funchal.

The "Enterprise" arrived in Boston on October 12, in command of the executive officer, Lieut. Robert E. Coontz, U. S. Navy; and the commissioners were grieved to learn that the superintendent, Commander Edward M. Hughes, U. S. Navy, was very seriously ill.

On October 15 the "Enterprise" was moored at her old berth at the North End Park, by permission of the commissioners of the bath department, city of Boston. Commander Hughes was surveyed by a medical board, by order of the Navy Department, and granted three months' sick leave.

On November 4 he was removed from the "Enterprise" to the naval hospital at Chelsea, where he is now slowly but steadily improving in health.

Commander Hughes has been succeeded in the command of the "Enterprise" by Commander Conway H. Arnold, U. S. N., under orders from the Navy Department.

#### PERSONNEL.

The following officers are now attached to the ship: Commander Conway H. Arnold, U. S. N., commanding officer and superintendent; Lieut. George B. Bradshaw, U. S. N., executive officer and instructor in seamanship; Lieut. James F. Carter, U. S. N., navigator and instructor in navigation; Ensign Walter G. Richardson, U. S. N. (retired), instructor; Mr. Frank D. Terry, chief engineer and instructor in steam engineering and electricity; Dr. Junius C. Gregory, surgeon; Mr. John L. Berry, instructor; Mr. Alfred E. King, captain's clerk.

The changes in the officers and instructors of the school during the past year have been as follows: April 1, 1901, Lieut. Jas. F. Carter reported as navigator and instructor; May 7, Ensign W. G. Richardson reported as ensign and instructor; November 4, Commander E. M. Hughes was detached; November 8, Commander Conway H. Arnold reported for the command of the "Enterprise;" November 23, Lieut. Robert E. Coontz was detached; December 1, Lieut. George B. Bradshaw reported for duty as executive officer; December 1, Mr. Frank D. Terry was engaged as engineer and instructor, vice W. A. Colcord.



## STATISTICS OF CADETS.

*Cadets admitted during the Year 1901.*

Number in the school Jan. 1, 1901:—					
Seamanship class,	.	.	.	39	
Engineer class,	.	.	.	62	
Total,	.	.	.		101
Applications received, 1901,				95	
Awaiting examination,	.	.	.	1	
Failing to appear for examination,	.	.	.	9	
Unsatisfactory recommendations,	.	.	.	1	
Applicants examined,	.	.	.	84	
				95	
Examined,	.	.	.		84
Failed to pass mental examination,	.	.	.	42	
Passed examinations,	.	.	.	42	
				84	
Passed examinations,	.	.	.	42	
Re-examined mentally and passed,	.	.	.	28	
Readmitted,	.	.	.	1	
				71	
Total number admitted to school during 1901,	.	.	.		71
Total number connected with school during 1901,	.	.	.		172
<i>Cadets withdrawn during the Year 1901.</i>					
Total number regularly graduated,				29	
Seamanship class,	.	.	.	11	
Engineer class,	.	.	.	18	
				29	
Total number granted an honorable discharge,				20	
Seamanship class,	.	.	.	8	
Engineer class,	.	.	.	12	
				20	
Total number graduated and honorably discharged,	.	.	.		49
Deserted,	.	.	.	2	
Dismissed,	.	.	.	2	
Dropped from roll,	.	.	.	12	
Total number dismissed, etc,	.	.	.		16
Total withdrawals during 1901,	.	.	.		65
Number of cadets in the school Jan. 1, 1902:—					
Seamanship class,	.	.	.	46	
Engineer class,	.	.	.	61	
Total,	.	.	.		107

## THE WINTER TERM.

The "Enterprise" is moored at the North End Park, Boston, where she will remain during the winter term.

Instruction is now being given on board to one hundred

and eight cadets, which is about the total number that the ship will accommodate.

The commissioners and the superintendent would be gratified to have members of the Legislature visit the "Enterprise" at the above-mentioned wharf on any day excepting Saturday and Sunday, when the cadets are absent at their homes, to see for themselves what work is being accomplished in this school.

#### SUMMARY.

The following tables show the different capacities in which the cadets have been employed since leaving the school, and also the branches of service in which they have been engaged, so far as known by the commissioners:—

##### *Seamanship Class.*

Masters, . . . . .	4
First officers, . . . . .	6
Second officers, . . . . .	11
Third officers, . . . . .	4
Fourth officers, . . . . .	2
Chief quartermasters, . . . . .	3
Quartermasters, . . . . .	40
Junior quartermaster, . . . . .	1
Cadets and seamen, . . . . .	49
Boatswains, . . . . .	4
Chief yeomen, . . . . .	2
Third lieutenant, U. S. revenue cutter service, . . . . .	1
Cadets, U. S. revenue cutter service, . . . . .	2
Cadets, U. S. Naval Academy, . . . . .	2
Third deck officer, U. S. coast survey, . . . . .	1
Fourth boat keeper, pilot boat service, . . . . .	1

##### *Engineer Class.*

Chief engineers, . . . . .	3
First assistant engineers, . . . . .	3
Second assistant engineers, . . . . .	15
Third assistant engineers, . . . . .	4
Engineers and assistant engineers, . . . . .	16
Engineer cadets and oilers, . . . . .	35
Firemen, . . . . .	8
Machinists (afloat), . . . . .	10
Machinists (on shore), . . . . .	18
Warrant machinists in U. S. Navy, . . . . .	2
Chief electrician, . . . . .	1
Electricians, . . . . .	26
Total, . . . . .	274

<i>Class of Vessels.</i>	
Pacific coast steamers, . . . . .	8
Transatlantic steamers, . . . . .	62
Coastwise steamers, . . . . .	51
"Tramp" steamers and towboats, . . . . .	17
Steam yachts, . . . . .	13
Sailing vessels, . . . . .	30
U. S. transports, . . . . .	14
U. S. revenue cutter steamers, . . . . .	8
U. S. coast survey steamers, . . . . .	6
U. S. light-house service, . . . . .	2
U. S. naval vessels, . . . . .	29
Total, . . . . .	240

## MEMBERSHIP OF THE SCHOOL—GRADUATES FOR 1901.

*Spring Graduating Class, April, 1901.*

Bolton, W. R., . . .	Engineer Cadet, . . .	Cambridge.
Coholan, J. J., . . .	Seaman " . . .	South Boston.
Holden, M. H. L., . . .	Engineer " . . .	Worcester.
Harrington, C. D., . . .	Seaman " . . .	Cambridge.
McDonald, R. S., . . .	Engineer " . . .	Boston.
Marshall, A. R., . . .	Seaman " . . .	North Easton.
Murphy, E. I. K., . . .	Engineer " . . .	Worcester.
Parsons, F. E., . . .	Seaman " . . .	Kendall Green.
Patterson, R. A., . . .	Engineer " . . .	Brighton.
Richardson, G. W. W., . . .	" " . . .	Melrose.
Salles, A. W., . . .	Seaman " . . .	Dorchester.
Warren, D. W., . . .	Engineer " . . .	Revere.

*Autumn Graduating Class, October, 1901.*

Anderson, W. A., . . .	Seaman Cadet, . . .	Gloucester.
Browne, F. A., . . .	Engineer " . . .	Westborough
Boyle, P. T., . . .	" " . . .	Worcester.
Bruce, G. H., . . .	" " . . .	East Gloucester.
Bicknell, T. H., . . .	Seaman " . . .	Melrose.
Crandall, C. H., . . .	" " . . .	North Attleborough.
Driesner, G. F., . . .	Engineer " . . .	North Attleborough.
Foss, J. W., . . .	" " . . .	Amesbury.
Goffin, E. W., . . .	" " . . .	Wood's Hole.
Heintzeman, C. H., . . .	Seaman " . . .	Brookline.
Kroh, H. A., . . .	Engineer " . . .	Roxbury.
Lea, J. B., . . .	" " . . .	Methuen.
Maglathlin, S. A., . . .	" " . . .	North Easton.
Mason, D. C., . . .	" " . . .	Everett.
Sackett, E. E., . . .	" " . . .	Lynn.
Tucker, R. W., . . .	Seaman " . . .	Kendall Green.
Went, T. B., . . .	" " . . .	Brookline.

*Class to Graduate April, 1902.*

Butler, D. F.,	Engineer Cadet,	North Easton.
Boesch, H. E.,	Seaman	Wakefield.
Castle, A. E.,	Engineer	Methuen.
Castle, George,	Seaman	Lynn.
Cook, S.,	Engineer	Nantucket.
Connor, W. H.,	"	Boston.
Campbell, E. J.,	"	Boston.
Chisholm, W. M.,	Seaman	North Attleborough.
Connors, M. L.,	Engineer	Dorchester.
Hynes, J. J.,	"	Holyoke.
Hathaway, B. W.,	"	Taunton.
Jensen, A.,	Seaman	Provincetown.
Kenny, W. J.,	Engineer	Malden.
Luby, J. E.,	"	New Bedford.
Lamb, G. C.,	Seaman	North Attleborough.
McGuire, G. E.,	Engineer	Halifax.
McKay, O. E.,	Seaman	Provincetown.
Murphy, J. F.,	Engineer	Worcester.
McCrillis, H. W.,	"	Malden.
Mort, F.,	"	North Adams.
Ruggles, L. G.,	"	Neponset.
Russey, R. B.,	"	Cambridge.
Soule, B. F.,	Seaman	Lynn.
Saunders, E. L.,	Engineer	Brockton.
Wood, H. J.,	"	Lawrence.

*Class to Graduate October, 1902.*

Archie, A. P.,	Engineer Cadet,	Gloucester.
Aechtler, F. W.,	Seaman	Brookline.
Butterfield, F. J.,	"	Haverhill.
Chase, A. F.,	"	West Harwich.
Crockett, G. E.,	Engineer	Malden.
Cushing, A. R.,	Seaman	Dorchester.
Grandin, H. V.,	"	Boston.
Hart, A. W.,	Engineer	North Truro.
Jones, L. R. F.,	"	South Hingham.
Lithgow, T.,	Seaman	Boston.
Luscomb, B. R.,	"	Nahant.
Luther, A. T.,	"	Swansea.
Marshall, J. H.,	Engineer	Gloucester.
Madden, E. J.,	Seaman	Everett.
O'Reilly, W. I.,	"	South Boston.
Parker, H. T.,	"	Rockport.
Peterson, R. L.,	Engineer	Plymouth.
Rydquist, C. H. A.,	Seaman	Brockton.
Reidy, J. A.,	Engineer	Boston.
Spaulding, A. B.,	"	Peabody.

Seibert, F. C.,	Seaman Cadet,	Greenfield.
Trefethen, H. E.,	Engineer "	Merrimac.
White, R. S.,	" "	Malden.
Whalen, M. J.,	" "	Peabody.

*Class to Graduate April, 1903.*

Bostwick, H. M.,	Seaman Cadet,	Northbridge.
Baylies, E. W.,	" "	New Bedford.
Clapp, L. A.,	" "	Brockton.
Christiernin, A. F.,	" "	East Boston.
Chase, A. B., Jr.,	" "	New Bedford.
Chandler, F. C.,	" "	Brookline.
Collins, J. H.,	" "	Lawrence.
Farnham, C. B.,	" "	Malden.
Goodspeed, R. W.,	" "	Boston.
Greeley, M. H.,	Engineer "	South Boston.
Hogan, E. J.,	" "	South Boston.
Kane, N. J.,	Seaman "	Whitman.
Liverpool, H. J.,	Engineer "	Boston.
Lemp, H. J. G.,	" "	Lynn.
McGarry, J. S.,	" "	Shrewsbury.
O'Connell, B.,	Seaman "	Peabody.
Powers, E. E.,	Engineer "	Cambridgeport.
Shaw, G. M.,	" "	Springfield.
Smith, C. N.,	Seaman "	Plymouth.
Spear, H. W.,	Engineer "	Malden.
Taisey, P. C.,	" "	Lowell.
Woodbury, M.,	Seaman "	Townsend.
Wyman, A. E.,	" "	Winthrop.
Waite, H. R.,	" "	Winthrop.
Webber, C. W.,	" "	Cambridge.
Wells, R. A.,	" "	Greenfield.
Whitman, R. W.,	Engineer "	Roxbury.
Young, E. H.,	" "	Upton.

*Class to Graduate October, 1903.*

Cunningham, S.,	Seaman Cadet,	Cambridge.
Conley, J. A.,	Engineer "	Rockport.
Cashman, W. P.,	" "	Lynn.
de L'Etoile, A. J.,	Seaman "	Boston.
Fernald, H. V.,	" "	Charlestown.
Garvin, E. W. P.,	" "	South Boston.
Garland, F. S.,	Engineer "	Randolph.
Goodwin, C. W.,	" "	Melrose.
Hudson, G. H.,	" "	Somerville.
Jones, C. T.,	Seaman "	Roxbury.
Jones, R. C.,	Engineer "	Fitchburg.
Komenda, R.,	" "	Somerville.
Lowe, H. A.,	Seaman "	Roxbury.
Merceer, E. A.,	Engineer "	Cambridge.



Nye, R. H.,	Engineer Cadet,	North Falmouth.
O'Neil, T. J.,	" "	Worcester.
Orr, H. S.,	" "	North Adams.
Powers, R. B.,	Seaman	Brockton.
Rich, E. C.,	" "	Roxbury.
Rideout, H. C.,	" "	Concord Junction.
Rice, L. P.,	Engineer	Quincy.
Snowdale, W. W.,	" "	Stoughton.
Shields, W. J.,	" "	Boston.
Thompson, H. A.,	Seaman	South Framingham.
Woodbury, V.,	" "	Townsend.
Woodbury, E. F. M.,	" "	East Boston.
Woodbridge, F. D., Jr.,	Engineer	Wakefield.
Young, R. W.,	Seaman	Boston.

### APPROPRIATIONS.

The appropriations for the school for the year 1901, which are here accounted for, were : —

#### *Current Expenses.*

Appropriation,	\$50,000 00
Expended : —	
Pay roll,	\$23,875 95
Provisions,	12,056 79
Text-books, instruments, etc.,	368 78
Seamanship department,	2,887 25
Engineer department,	5,278 03
Miscellaneous,	5,502 64
Total amount expended,	49,969 44
Balance unexpended,	\$30 56

#### *Office Expenses.*

Appropriation,	\$5,000 00
Expended : —	
Salaries,	\$3,432 00
Commissioners' expenses,	249 15
Miscellaneous,	1,218 02
Total amount expended,	4,899 17
Balance unexpended,	\$100 83

Respectfully submitted,

GEO. E. BELKNAP, *Chairman,*

REAR ADMIRAL, U. S. N. (Retired), LL.D.,

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

## INFORMATION REGARDING GRADUATES OF THE SCHOOL.

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The commissioners have been gratified to learn, through the record of graduates carefully kept in this office, of the steady and substantial progress made by the seaman and engineer graduates of the school. The reports received during the past year, of the young men who have gone out from the school to enter the merchant service, have been of a very encouraging nature, and show the abundant success attending the work of the State in its endeavor to educate young seamen as officers for our American mercantile marine.

The increase in the number of steamships built during the last three years and the large number of vessels launched from Maine ship yards have materially enlarged the heretofore limited opportunities afforded by our merchant marine for young seamen. Our graduates are gradually taking their places on the decks or in the engine departments of steamers of the different steamship lines of the country. Young seamen or engineers from this school are now found in the steamers of the American Hawaiian Steamship Company, Pacific Mail Steamship Company, Empire Line, New York & Puerto Rico Steamship Company, Ward Line, Morgan Line, Clyde Line, "Red D" Line, American Line, Atlantic Transport Company, Leyland Line, Plant Line, Joy Steamship Company, Boston & Philadelphia Steamship Company, Metropolitan Line, Merchant and Miners Transportation Company, Boston Towboat Company and other lines.

The following extracts from a few of the communications received at the office of the commissioners, from graduates or their parents, will be of interest in showing the work taken up by the cadets after leaving the school : —

Fred'k A. Sparks of Provincetown, third officer of the U. S. army transport "Sumner," writes: "I always take a great interest in everything connected with the school, as the instruction I received has been very beneficial. I have met a number of ex-cadets and will give the whereabouts of a few of them. George R. Lauriat is second officer of the U. S. A. transport 'Sumner;' Charles W. Clift is third officer of the Empire Line steamer 'Ohio;' Willis Howes is quartermaster of the Spreckels Line steamer 'Mariposa;' Joseph E. Sheedy is third assistant engineer of the transport 'Egbert;' and Herbert R. Spencer is captain and part owner in brig 'Pitcairn,' used in the inter-island trade of the Philippines."

Harry E. Richardson of Medford writes from Adelaide, South Australia: "I have been out here trading between the colonies, and will sail in a few weeks for San Francisco on board the American bark 'Himalaya.' Upon our arrival in San Francisco I intend to take the examination for mate."

Edward Smith, Wellesley: "I served as seaman on the tramp steamer 'Pleiades,' running between Boston and Norfolk, and am now quartermaster of the steamer 'Grecian.' I shall apply for second officer's papers next April. There is nothing like the 'Enterprise' to give a young man who desires to follow the sea a start."

Mr. Herbert R. Cummings, Worcester: "My son secured a position in February as a deck cadet on the S. S. 'St. Louis,' and was promoted in May to cadet quartermaster. In August he was appointed quartermaster of the 'Philadelphia.' My son has had several offers from other lines. The Nautical Training School was the making of the boy."

Mr. Chas. F. Harrington, Boston: "My son is quartermaster of the S. S. 'Lyra,' at present running between Boston and Newport News. I am greatly pleased with my son's progress, due to the training received on the 'Enterprise.' I believe the school to be a fine institution for the development of officers for the American merchant marine."

Mrs. Julia Scanlon, North Easton: "My son is at present working in the engine department of the Geo. Lawley & Son Corporation. The training received in your school is very valuable, and any boy can be benefited by it."

Gershom Bradford, Millbrook : " I first served as recorder on board the U. S. coast survey steamer ' Eagle.' I am now third deck officer on board the coast survey steamer ' Endeavor ' in Chesapeake Bay."

Mr. J. Willard Cutts, Stoneham : " My son is quartermaster on board the ' Admiral Sampson.' The school is doing a good work ; if any one wishes to follow the sea, your school is the one to attend."

Mr. William B. Stevens, Nantucket : " My son has served in the engine department of the S. S. ' Admiral Farragut.' Later he was assistant engineer of the ' Admiral Dewey,' and is now assistant engineer of the S. S. ' Ponce' of the New York & Puerto Rico Steamship Company. I am very well pleased with the training my son received, and I consider the Nautical Training School a good school."

Mrs. Mary C. Howley, Weymouth : " My son is at present engineer on board the steamer ' Seneca ' of New York. I consider the Nautical Training School a splendid opportunity for a boy who desires to follow the sea ; it gives him a good start in life. I am sure my son has profited by what he learned during his course in marine engineering."

Albert S. Warner, Waverley : " I have been mate of the schooner ' William F. Campbell.' I obtained my license as master in Baltimore, covering all sail vessels in all waters, and I am in hopes of being master of a vessel before long."

Miss Annie M. Sullivan, Randolph : " My ward, ex-cadet James H. Barry, is employed in the engine department of the steamship ' Admiral Dewey.' He always spoke very highly of the work of the school, and the officers in charge."

Adam M. Queen, Highlandville, was appointed in September, 1900, quartermaster on board the steamer " Kershaw." In July, 1901, he was promoted to second officer, and in September last he served as executive officer of the steamer " State of Texas " of the Merchant and Miners Transportation Company. He holds a license as mate.

Albert F. Patterson, Townsend, first served as engineer cadet of the " St. Louis." He afterwards was appointed fourth assistant engineer of the army transport " Sumner," and is now first assistant engineer of the Philippine Island transport " Liscum."



Emery Rice, Brighton, has been quartermaster and fourth officer of steamers of the American Line, and is at present second officer of the new steamer "Oregonian" of the American-Hawaiian Steamship Company.

Joseph W. McGrath, Quincy, holds a license as mate, and is second officer of the coast survey steamer "Gedney." He previously served as fourth watch officer of the coast survey steamer "Pathfinder," and as chief master-at-arms of the coast survey steamer "Bache."

Joseph E. Gately of Marlborough was for three months a seaman cadet on board the steamer "New York," when he was promoted to quartermaster. After a service of nine months as chief quartermaster he was given an appointment as fourth officer of the new 12,000 ton steel steamship "Vaderland" of the Red Star Line, plying between New York and Antwerp.





# LEGAL AUTHORITY FOR THE SCHOOL.

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AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows :*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,

said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.

[*Approved June 11, 1891.*]

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, NOV. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship Enterprise for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and

section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

#### MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

##### *Establishment.*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war Enterprise, as a vessel suitable for the purpose.



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ELEVENTH ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1903.



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APPROVED BY

THE STATE BOARD OF PUBLICATION.

W. B. R. 1842

COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

---

GEORGE E. BELKNAP, *Chairman*,  
REAR ADMIRAL, U. S. N., LL.D.  
ROBERT B. DIXON, M.D.  
HON. JOHN READ.

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F. STANHOPE HILL, *Secretary*.



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# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the  
Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1902.

### THE WORK OF THE YEAR.

During the past year the efficiency of the Nautical Training School has been satisfactorily maintained, although the commissioners have been confronted with unusual difficulties. The pressing need of the Navy Department for officers for the new ships lately put into commission has resulted in the enforced withdrawal from the various State schoolships of all the officers detailed for that duty. Fortunately, the commissioners have succeeded in obtaining the assignment to the U. S. S. "Enterprise" of Commander William F. Low, U. S. N., retired, as superintendent, and Ensign William L. Varnum, U. S. N., retired, as executive officer. Commander Low served as executive officer of the "Enterprise" in 1897-98, and is consequently very familiar with the work of the school; while Ensign Varnum has been for the past four and one-half years on duty in the Bureau of Equipment, Navy Department, Washington, where he had one hundred and fifty officers under his instruction.

To supplement these older and more experienced naval officers, the commissioners have appointed three graduates of the school as acting ensigns and assistant engineer and instructors. Of these, Mr. Frederick W. Jones, who graduated from this school in 1896, has since obtained from the United States inspectors a full master's certificate, and has been for several years an officer in the service of several steamship companies. Mr. A. Russell Cushing was graduated last October with high honors, having been No. 1 in his class during his entire term of two years. Mr. W. Warren Ruggles was graduated in 1898, and during the Spanish war passed a successful examination for assistant engineer in the United States Navy. He has served on various transports and other vessels. All these gentlemen are proving very efficient officers and instructors, and the commissioners have a natural pride in their success as worthy products and representatives of this school.

#### APPROPRIATIONS.

As was indicated in the last report of the commissioners, considerable repairs to the "Enterprise" were necessary during the past year, which necessitated coming to the Legislature for an extra appropriation of \$5,000; and further repairs will be required in the course of the year 1903. The estimate submitted to the commissioners by the chief engineer for his department is as follows:—

Condenser to be retubed and tube sheets repaired, . . . . .	\$2,400
A new electric generator, together with direct-connected engine, . . . . .	1,000
A new evaporator and distillers, . . . . .	800
A new screw for reversing engine, . . . . .	50
A new hot-well tank, . . . . .	45
A new sanitary pump, . . . . .	225
Bunkers and fire-room floor plates repaired, . . . . .	200
Repairing bilge piping, . . . . .	200
New attachments on boilers, . . . . .	100
	<hr/>
	\$5,020

The necessity of replacing the naval surgeon, chief engineer, navigator and watch officer, heretofore detailed by the Navy Department, by civil officers, has compelled a very

considerable increase in the salaries heretofore paid to these officers. The increase in the regular wages of seamen and petty officers within the past few years has also been very considerable. As evidence of this, while the pay roll of the "Enterprise" for November, 1895, was but \$1,775.62, the pay roll for December, 1902, was \$2,276.93, which represents an increase of \$6,000 for the year. The cost of provisions and coal have also materially increased, so that it has become impossible, even with the greatest economy, to maintain the school in a proper state of efficiency within the present appropriation of \$50,000, without the annoying expedient of asking for an extra appropriation from year to year.

The act of June 11, 1891 (section 5, chapter 402), reads : —

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth.

The commissioners have petitioned the General Court as follows : —

The Commissioners of the Massachusetts Nautical Training School respectfully represent that, in view of the increase in wages and the cost of provisions, coal and other essentials to the proper maintenance of the said Nautical Training School, the sum provided by law for such purpose is found to be insufficient ; and they would therefore ask that chapter 45 of the Revised Laws of Massachusetts may be amended by striking out the first two lines in section 5, and inserting in their place the words, "They may annually expend such sum as the legislature may appropriate from year to year, which shall be paid by the Commonwealth."

If this amendment is adopted, the commissioners will be enabled each year to apply for such sums as may be actually needed by the requirements of the school.

## THE SUMMER CRUISE.

After clearing away the winter deck house, the "Enterprise" was fitted for sea early in June; and on the 11th of that month His Honor the Lieutenant-Governor, with several members of the Executive Council, the committee on ways and means and the committee on education, went on board the ship with the commissioners and made a trip down the harbor outside of Boston light. During the day the cadets and their quarters were thoroughly inspected by His Honor and the invited guests, and the cadets were exercised in making and taking in sail, and other evolutions in practical seamanship.

On June 14 the "Enterprise" sailed from Boston, arriving at Queenstown, Ire., on July 4, after a passage of twenty days, of which but three days and sixteen hours were made under steam, and sixteen days and eleven hours under sail. The ship also visited Southampton, Eng., where the cadets had an opportunity, as usual, of visiting London; Havre, with visits to Paris; Gibraltar; Tangier; Funchal, Madeira; and Bermuda, returning to Marblehead on October 7. During this very interesting and instructive cruise the health of the cadets was excellent, no case of serious illness developing.

The "Enterprise" came up to Boston after an inspection by the commissioners, and was moored the next day, by the courtesy of the bath commission of the city of Boston, at their pier at the North End Park, where the ship is now berthed.

## PERSONNEL.

On May 5, 1902, Commander Edward D. Taussig, U. S. N., was ordered to the command of the "Enterprise," relieving Commander Conway H. Arnold, U. S. N.

On Oct. 23, 1902, Commander E. D. Taussig, U. S. N., was detached from the ship, being relieved by Commander William F. Low, U. S. N., retired.

On Oct. 16, 1902, Lieut. George B. Bradshaw, U. S. N., executive officer, was detached.



On Nov. 15, 1902, Lieut. James F. Carter, U. S. N., navigating officer, was detached.

Dec. 1, 1902, William L. Varnum, U. S. N., retired, was ordered to the U. S. S. "Enterprise" as executive officer.

The following officers are now attached to the school: Commander William F. Low, U. S. N., retired, commanding officer and superintendent; Ensign William L. Varnum, U. S. N., retired, executive officer; Mr. Frank D. Terry, chief engineer; Mr. A. Russell Cushing, acting ensign and instructor; Mr. Frederick W. Jones, acting ensign and instructor; Mr. W. Warren Ruggles, assistant engineer; Dr. Edmund L. Saunders, surgeon; Mr. John L. Berry, instructor; Mr. Alfred E. King, captain's clerk.

#### AN OFFICIAL OPINION.

During a somewhat extended term of service in the Legislature, one of my committees (Education) had more or less to do with the school under your control. I repeatedly visited the "Enterprise," and each time came away with increased admiration for what I saw. The school seemed to me to fill just the place long vacant in our system. Excellent mental and physical drill, with just enough of adventure in the annual cruise, gives to the boys an outfit for useful lives. I fancy that experience will result in even better future work, and that the training ship is assured a permanent place in the grand educative system of the Commonwealth.

ALFRED S. ROE.

WORCESTER, MASS., Nov. 15, 1898.

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1902.*

Number in the school Jan. 1, 1902:—			
Seamanship class, . . . . .		46	
Engineer class, . . . . .		61	
Total, . . . . .			107
Applications received, 1902, . . . . .			116
Awaiting examination, . . . . .	1		
Failing to appear for examination, . . . . .	7		
Applicants examined, . . . . .	108		
	116		
Examined, . . . . .			108
Failed to pass mental examination, . . . . .	41		
Failed to pass physical examination, . . . . .	2		
Failed to pass mental and physical examination, . . . . .	1		
Passed examinations, . . . . .	64		
	108		
Passed examinations, . . . . .	64		
Re-examined mentally, and passed, . . . . .	26		
Readmitted, . . . . .	3		
	93		
Failed to qualify after passing examinations, . . . . .	3		
Total number admitted to school during 1902, . . . . .			90
Total number connected with school during 1902, . . . . .			197
<i>Cadets withdrawn during the Year 1902.</i>			
Total number regularly graduated, . . . . .			38
Seamanship class, . . . . .	16		
Engineer class, . . . . .	22		
	38		
Total number granted an honorable discharge, . . . . .			34
Seamanship class, . . . . .	16		
Engineer class, . . . . .	18		
	34		
Total number graduated and honorably discharged, . . . . .			72
Dropped from roll, . . . . .	5		
Deserted, . . . . .	1		
Dismissed, . . . . .	7		
Total number dismissed, etc., . . . . .			13
Total withdrawals during 1902, . . . . .			85
Number of cadets in the school Jan. 1, 1903:—			
Seamanship class, . . . . .		41	
Engineer class, . . . . .		71	
Total, . . . . .			112

## THE WINTER TERM.

The “Enterprise” is moored at the North End Park, Boston, where she will remain during the winter term.

Instruction is now being given on board to 112 cadets, which is about the total number that the ship will accommodate.

The commissioners and the superintendent would be gratified to have members of the Legislature visit the “Enterprise” at the above-mentioned wharf on any days, excepting Saturday and Sunday, when the cadets are absent at their homes, that they may see for themselves what work is being accomplished in this school.

## SUMMARY.

The following tables show the different capacities in which the cadets have been employed since leaving the school, and also the branches of service in which they have been engaged, so far as known by the commissioners:—

*Seamanship Class.*

Acting ensigns, . . . . .	3
Masters, . . . . .	4
First officers, . . . . .	6
Second officers, . . . . .	11
Third officers, . . . . .	4
Fourth officers, . . . . .	2
First mates, . . . . .	5
Second mates, . . . . .	12
Chief quartermasters, . . . . .	3
Quartermasters, . . . . .	49
Junior quartermaster, . . . . .	1
Cadets and seamen, . . . . .	51
Chief yeomen, . . . . .	4
Third lieutenants, U. S. revenue cutter service, . . . . .	3
Cadet, U. S. revenue cutter service, . . . . .	1
Petty officers, revenue cutter service, . . . . .	4
U. S. coast survey, . . . . .	4
Pilot boat service, . . . . .	4

*Engineer Class.*

Chief engineers, . . . . .	5
First assistant engineers, . . . . .	4
Second assistant engineers, . . . . .	13

Third assistant engineers, . . . . .	13
Fourth assistant engineer, . . . . .	1
Engineers and assistant engineers, . . . . .	25
Engineer cadets and oilers, . . . . .	41
Firemen, . . . . .	6
Machinists, . . . . .	34
Chief electrician, . . . . .	1
Electricians, . . . . .	32
Total, . . . . .	<hr/> 346

*Class of Vessels.*

Pacific coast steamers, . . . . .	8
Transatlantic steamers, . . . . .	75
Coastwise steamers, . . . . .	70
"Tramp" steamers and tow boats, . . . . .	18
Steam yachts, . . . . .	16
Sailing vessels, . . . . .	39
U. S. transports, . . . . .	16
U. S. revenue cutter steamers, . . . . .	8
U. S. coast survey steamers, . . . . .	8
U. S. light-house service, . . . . .	3
U. S. naval vessels, . . . . .	45
Pilot boats, . . . . .	4
Total, . . . . .	<hr/> 310

*Spring Graduating Class, April, 1902.*

Butler, D. F., . . .	Engineer cadet, . . .	North Easton.
Boesch, H. E., . . .	Seaman " . . .	Wakefield.
Castle, George, . . .	" " . . .	Lynn.
Connor, W. H., . . .	Engineer " . . .	Boston.
Campbell, E. J., . . .	" " . . .	Boston.
Chisholm, W. M., . . .	Seaman " . . .	North Attleborough.
Hynes, J. J., . . .	Engineer " . . .	Holyoke.
Hathaway, B. W., . . .	" " . . .	Taunton.
Jensen, A., . . .	Seaman " . . .	Provincetown.
Kenny, W. J., . . .	Engineer " . . .	Malden.
Luby, J. E., . . .	" " . . .	New Bedford.
Lamb, G. C., . . .	Seaman " . . .	North Attleborough.
McGuire, G. E., . . .	Engineer " . . .	Halifax.
McKay, O. E., . . .	Seaman " . . .	Provincetown.
Murphy, J. F., . . .	Engineer " . . .	Worcester.
McCrillis, H. W., . . .	" " . . .	Malden.
Mort, F., . . .	" " . . .	North Adams.
Ruggles, L. G., . . .	" " . . .	Neponset.
Russey, R. B., . . .	" " . . .	Cambridge.
Soule, B. F., . . .	Seaman " . . .	Lynn.
Saunders, E. L., . . .	Engineer " . . .	Brockton.
Wood, H. J., . . .	" " . . .	Lawrence.

*Autumn Graduating Class, October, 1902.*

Archie, A. P.,	Engineer cadet,	Gloucester.
Cushing, A. R.,	Seaman "	Dorchester.
Hart, A. W.,	Engineer "	North Truro.
Jones, L. R. F.,	" "	South Hingham.
Lithgow, T.,	Seaman "	Boston.
Luscomb, B. R.,	" "	Nahant.
Luther, A. T.,	" "	Swansea.
Marshall, J. H.,	Engineer "	Gloucester.
Madden, E. J.,	Seaman "	Everett.
O'Reilly, W. I.,	" "	South Boston.
Parker, H. T.,	" "	Rockport.
Rydquist, C. H. A.,	" "	Brockton.
Spaulding, A. B.,	Engineer "	Peabody.
Seibert, F. C.,	Seaman "	Greenfield.
Trefethen, H. E.,	Engineer "	Merrimac.
White, R. S.,	" "	Malden.

*Class to graduate April, 1903.*

Bostwick, H. M.,	Seaman cadet,	Northbridge.
Baylies, E. W.,	" "	New Bedford.
Clapp, L. A.,	" "	Brockton.
Chase, A. B., Jr.,	" "	New Bedford.
Chandler, F. C.,	" "	Brookline.
Greeley, M. H.,	Engineer "	South Boston.
Hogan, E. J.,	" "	South Boston.
Kane, N. J.,	Seaman "	Whitman.
Liverpool, H. J.,	Engineer "	Boston.
Lemp, H. J. G.,	" "	Lynn.
McGarry, J. S.,	" "	Shrewsbury.
O'Connell, B.,	Seaman "	Peabody.
Powers, E. E.,	Engineer "	Cambridgeport.
Spear, H. W.,	" "	Malden.
Taisey, P. C.,	" "	Lowell.
Woodbury, M.,	Seaman "	Townsend.
Wyman, A. E.,	" "	Winthrop.
Waite, H. R.,	" "	Winthrop.
Webber, C. W.,	" "	Cambridge.
Wells, R. A.,	" "	Greenfield.
Whitman, R. W.,	Engineer "	Roxbury.

*Class to graduate October, 1903.*

Cunningham, S.,	Seaman cadet,	Cambridge.
Conley, J. A.,	Engineer "	Rockport.
Cashman, W. P.,	" "	Lynn.
de L'Etoile, A. J.,	Seaman "	Boston.
Fernald, H. V.,	" "	Charlestown.



Garland, F. S.,	Engineer cadet,	Randolph,
Hudson, G. H.,	" "	Somerville,
Komenda, R.,	" "	Somerville,
Lowe, H. A.,	Seaman	Roxbury,
Mercer, E. A.,	Engineer	Cambridge,
O'Neil, T. J.,	" "	Worcester,
Orr, H. S.,	" "	North Adams,
Powers, R. B.,	Seaman	Brockton,
Rich, E. C.,	" "	Roxbury,
Rice, L. P.,	Engineer	Quincy,
Thompson, H. A.,	Seaman	South Framingham,
Woodbury, V.,	" "	Townsend,

*Class to graduate April, 1904.*

Ardrey, F. C.,	Engineer cadet,	New Bedford
Brackett, W. R.,	" "	Brookline,
Branagan, Charles,	" "	Worcester,
Blunt, A. C.,	" "	Charlestown,
Bonner, C. C.,	" "	Taunton,
Blanchard, E. C.,	" "	Lynn,
Bessom, J. F., Jr.,	" "	Lynn,
Bowe, W. E.,	Seaman	Roxbury,
Barnes, Cyrus,	" "	Malden,
Chick, M. T.,	Engineer	Brookline,
Cullen, F. S.,	" "	Beverly,
Croston, F. W.,	" "	Malden,
Dunne, H. J.,	" "	Canton Junction,
Damon, N. L., Jr.,	Seaman	Cohasset,
Dunshee, G. A.,	" "	Charlestown,
Johnston, Chester,	Engineer	Rockland,
Johnson, L. T. W. C.,	" "	Worcester,
Jones, R. C.,	" "	Fitchburg,
Kinniery, H. J.,	" "	Worcester,
Marshall, P. M.,	" "	Newton,
Marshall, S. S.,	Seaman	Newton
McIntyre, C. L.,	Engineer	Upton,
McNaught, J. A.,	" "	Winthrop,
Osborne, C. W.,	" "	Worcester,
O'Connell, T. L.,	" "	Wakefield
Parker, H. A.,	" "	Mattapan,
Peck, J. G.,	Seaman	Dorchester,
Rideout, H. C.,	" "	Concord Junction
Stewart, William,	Engineer	Reading
Stoddard, C. H.,	Seaman	Worcester,
Sumner, B. M.,	" "	Dorchester,
Twombly, L. W.,	Engineer	Jamaica Plain,
Thompson, J. G.,	" "	Roxbury,
Thornton, W. J.,	Seaman	Boston,
Welch, B. L.,	Engineer	Lowell,

Williamson, J. F.,	Engineer cadet,	Brockton.
Williams, H. C.,	"	North Easton.
Waite, F. M.,	Seaman	South Dartmouth.

*Class to graduate October, 1904.*

Brown, G. E.,	Engineer cadet,	Pigeon Cove.
Bumpus, C. W.,	"	Wakefield.
Blaisdell, L. T.,	"	Carlisle.
Blake, S. M.,	"	Westfield.
Brown, C. R.,	"	Dorchester.
Blanchard, H. W.,	Seaman	Roslindale.
Bigelow, E. R.,	"	Bridgewater.
Coffin, Richard,	Engineer	Nantucket.
Cilley, F. L.,	"	Jamaica Plain.
Chadbourne, E. J.,	"	Reading.
Driscoll, J. W.,	"	Boston.
Deland, D. H., Jr.,	"	Springfield.
Danforth, W. A.,	"	Plymouth.
Dyson, C. G.,	"	North Billerica.
Fisk, C. C.,	"	Winthrop.
Foster, J. A.,	"	South Boston.
Gammon, F. B.,	"	Brockton.
Gosnay, T. F.,	"	Wakefield.
Hill, C. A.,	"	Melrose.
Hill, C. H., Jr.,	"	Reading.
Holmes, L. F.,	Seaman	Brockton.
Iverson, A. J.,	"	Beverly.
Kroh, A. B.,	Engineer	Roxbury.
Morgan, H. J.,	"	Wakefield.
Miller, H. G.,	"	Somerville.
Morey, E. E.,	"	Nantucket.
Nolan, E. B.,	Seaman	Somerville.
Roarty, P. D.,	"	Brockton.
Roberts, E. C.,	"	North Beverly.
Slayton, R. E.,	Engineer	Sutton.
Williams, E. W.,	"	Lynn.
Whippen, J. G.,	"	Lynn.
Wicks, A. J.,	"	Holyoke.
Welden, G. F.,	Seaman	Dorchester.
Young, W. E.,	"	Charlestown.

## APPROPRIATIONS.

The appropriations for the school for the year 1902, which are here accounted for, were : —

<i>Current Expenses.</i>	
Appropriation, . . . . .	\$50,000 00
Extra appropriation, . . . . .	5,000 00
	<hr/>
	\$55,000 00
Expended : —	
Pay roll, . . . . .	\$24,911 62
Provisions, . . . . .	16,250 44
Text-books, instruments, etc., . . . . .	384 92
Seamanship department, . . . . .	4,706 82
Engineer department, . . . . .	4,915 50
Repairs, . . . . .	2,505 41
Miscellaneous, . . . . .	1,323 22
	<hr/>
Total amount expended, . . . . .	54,997 98
	<hr/>
Balance unexpended, . . . . .	\$2 02
<i>Office Expenses.</i>	
Appropriation, . . . . .	\$5,000 00
Expended : —	
Salaries, . . . . .	\$3,463 00
Books and stationery, . . . . .	379 23
Commissioners' expenses, . . . . .	449 65
Miscellaneous, . . . . .	556 16
	<hr/>
Total amount expended, . . . . .	4,848 04
	<hr/>
Balance unexpended, . . . . .	\$151 96

Respectfully submitted,

GEO. E. BELKNAP, *Chairman*,

REAR ADMIRAL, U. S. N. (Retired), LL.D.,

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners*

BOSTON, Jan. 2, 1903.

## INFORMATION REGARDING GRADUATES OF THE SCHOOL.

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The commissioners believe that the graduates of the school are at the present time more sought after than ever before to fill deck and engine-room positions in the merchant service. Each year a larger number of young men from the school obtain licenses as first or second mates and assistant engineers, thus proving their qualifications as seamen and engineers.

One graduate has recently passed the examination for admission to the U. S. revenue cutter service, and two have been commissioned third lieutenants; one of these is now serving on board the "Algonquin," the first revenue cutter to be sent to Porto Rico from the United States. The names of four graduates of the school are now included in the register of the revenue cutter service.

One graduate, who served during the Spanish war as chief machinist, and who has since been assistant engineer on several steamers, has been appointed, after passing a civil service examination, refrigerator engineer in the service of the Philippine government, at a salary of \$1,600 a year.

The decision of the Navy Department to give preference to graduates of the different nautical schools in appointing quartermasters and assistant engineers for the naval colliers has afforded an opportunity for employment for many after leaving the school.

The United States consul general at London, Eng., having been asked by the Board of Trade of that city to give his opinion regarding the instruction given on board the different U. S. nautical training ships, and whether or not service on board these ships is accepted as sea service quali-

fying for examination for a second mate's certificate, referred the matter to Commander Richardson Glover, U. S. N., naval attaché, who replied as follows: "The nautical schools or training ships 'Enterprise,' 'St. Mary's' and 'Saratoga' are supported and controlled by the States of Massachusetts, New York and Pennsylvania, respectively, for the education of men and officers for the merchant service. The vessels are loaned by the general government to the several States. The instruction and service is A1, and a good part of the time is spent at sea. I should say unhesitatingly that service on board any one of these vessels would be accepted by our Bureau of Navigation in the qualifying examination for a second mate."

Following are extracts from a few of the letters recently received at the office of the commissioners from graduates or their parents:—

Joseph M. Gately, Marlborough: "My son is now acting as extra third officer on board the S. S. 'Philadelphia.' I am very much pleased with the training he received while a cadet in the school, and with his work after completing the course."

Mr. Arthur H. Cook, Nantucket: "My son, Stanley Cook, received an appointment on the New York 'Herald' staff in the wireless telegraph department. He has since resigned this position, and is now with the Marconi Wireless Telegraph Company of America. He is in Alaska, where the company is establishing stations for the Signal Corps of the United States between Port Gibbon and Fort St. Michaels. His first position was received on account of the training he received on board the 'Enterprise,' and was followed up by the offer from the Marconi company probably for the same reason."

Mr. Gershom Bradford, Millbrook: "I am now on the steamer 'Endeavor' of the U. S. Coast Survey as a watch officer, and am at present acting executive. I expect in a few weeks to be transferred to the new steamer 'Bache,' where I shall be a watch officer. I am pleased with my work, and take pleasure in recommending the 'Enterprise' to those who wish to follow the sea."



Mr. E. Newton Parker, Greenfield: "I am quartermaster on board the U. S. naval collier 'Hannibal.' I do a day's work of navigation every day, as the captain has loaned me a sextant. The mate and I get results nearly the same. I appreciate the instruction received in the school, and think that a graduate receives a good training for a seafaring life."

Mr. Jeremiah J. Donahoe, Cambridge: "I was first employed as oiler and water tender on board the transport 'McPherson,' which was wrecked near Matanzas, Cuba; then was third assistant engineer on the U. S. naval collier 'Caesar,' and of a steamer in the Ward line. I am now first assistant engineer on board the S. S. 'Oregon.'"

Mr. Frank Soule, Lynn: "My son is now serving on board the S. S. 'St. Louis.' I wish to say that I was very much pleased with the progress he made in his studies while a cadet on the 'Enterprise,' as well as with the general air of self-reliance and manliness which his experience as a cadet and cadet officer and the travel in foreign countries gave him; and, even if he should not follow the sea as a profession, the experience he has had is well worth the time spent in your school. I think that any young man who has a desire to follow the sea can do no better than to enter the Massachusetts Nautical Training School."

Mr. John L. Frame, Hyde Park: "The Nautical Training School is a good school for a young man who desires to take up the branches taught there. Any young man who enters the school can do well if he takes advantage of the opportunities for study and practical work."

Mrs. B. F. Hathaway, Taunton: "My son has entered the motor-testing department of the General Electric Company, Lynn. We consider the school of great value to boys, not only in physical training, but as a means of fitting them for good technical positions."

Mr. John Anderson, Gloucester: "My son first served on board the S. S. 'Philadelphia.' He has now taken up the study of civil engineering. The training my son received on board the 'Enterprise' has made a man of him; and has made his present studies seventy-five per cent. easier than they would have been."

Mr. W. F. Tucker, Kendal Green: "My son, who graduated No. 1 in his class, is quartermaster on board the S. S. 'Lyra.' I was in hopes of hearing from him before sending this record, as he was soon to get his license papers for second mate."

Capt. F. C. Bailey, Kingston: "My son was first employed on board the steam yacht 'Hildegarde.' He is now assistant boat keeper connected with the pilot boat 'America.' He is well liked on board, and considered as good as any man in the service."

Mr. Peter J. Hynes, Holyoke: "My son is oiler on board the steam yacht 'Tramp.' I wish to say that I am myself employed in steam and electrical work, and I was much pleased with the rapid advance made by my son in your school. I can recommend the ship for the development of a manly, self-reliant boy."

Mr. Howard F. Dow, Lynn: "My first employment was as engineer cadet on board the S. S. 'Admiral Farragut.' Subsequently I have worked at the Atlantic Works; as third electrician, S. S. 'St. Paul'; chief electrician, S. S. 'Virginian'; and night electrician, United States Steel Company."

Mr. Thomas A. Mort, North Adams: "Allow me to say that we do not regret having sent our son, cadet Fred Mort, to the Nautical Training School. It has done him a world of good, and developed him wonderfully both physically and mentally. It is splendid training, and we are greatly pleased with his good conduct and marks."

Mr. William Gourville, Gloucester, served for a time in the engineering department of the S. S. "Paris." Later he was engineer for two seasons on board the auxiliary schooner "Victor," and has recently been appointed engineer of the custom house steamer "Dreamer."

Mr. Henry G. Carpenter, Roxbury: "Since leaving the school, nine years ago, I have served on board the U. S. revenue cutter 'Perry,' and various merchant vessels on the Pacific coast. I was mate of the four-masted schooner 'Mahukona' and several other large schooners, and was for a time captain of the schooner 'Francis Alice.' I hold a chief officer's license."

## LEGAL AUTHORITY FOR THE SCHOOL.

AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, June 20, 1874.]

AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC  
MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

## [CHAPTER 402.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECT. 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECT. 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners,



said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECT. 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECT. 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECT. 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECT. 7. This act shall take effect upon its passage.

*[Approved June 11, 1891.]*

#### VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on Military Affairs, to whom was referred the matter of the approval of the United States ship Enterprise for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*



Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby *Ordered*, That the United States ship Enterprise be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

#### MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

##### *Establishment.*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.





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TWELFTH ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1904.



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# COMMISSIONERS

OF THE

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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N. M. DYER. *Chairman,*

REAR ADMIRAL, U. S. N. (RETIRED).

ROBERT B. DIXON, M.D.

HON. JOHN READ.

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F. STANHOPE HILL. *Secretary.*



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1903.

### THE WORK OF THE YEAR.

Notwithstanding the fact that the commissioners have been confronted with a serious difficulty in obtaining properly trained officers as instructors in the Nautical Training School, since the withdrawal by the Navy Department of the officers on the active list of the navy, heretofore detailed for such duty, the efficiency of the school has been satisfactorily maintained during the past year, and the roster of the school has been kept up to the full number of cadets that can be cared for properly.

The average number of cadets in the school from Jan. 1, 1903, to Jan. 1, 1904, has been 105. Of these, the engineer class has predominated, in about the ratio of 45 to 60.

Eighteen cadets graduated in April, 10 in the seamanship class and 8 in the engineering class; and in October the graduating class numbered 13, — 7 in the seamanship class and 6 in the engineer class, making a total for the year of 14 engineers and 17 seamen. Practically all of these graduates obtained employment at sea very shortly after their graduation, as quartermasters, electricians, oilers, etc.



## THE SUMMER CRUISE.

After completing necessary repairs, the "Enterprise" sailed from Boston on her usual summer cruise June 27, with a complement of 103 cadets on board. The itinerary included visits to Provincetown, Mass.; Horta, Fayal; Lisbon, Portugal; Gibraltar; Tangier, Morocco; and the island of Madeira; returning to Provincetown September 30, and to Boston October 1.

During these three months the cadets were kept in constant practice of the duties incident to their profession, as is well shown by the following extract from the report of the efficient superintendent, Commander William F. Low, U. S. Navy, to the commissioners:—

*Itinerary.*

Left Boston,	. . . June 27;	arrived at Provincetown,	. . . June 27.
" Provincetown,	. . . July 2;	" Horta, Fayal,	. . . July 17.
" Horta, Fayal,	. . . July 24;	" Lisbon, Portugal,	Aug. 1.
" Lisbon, Portugal,	Aug. 11;	" Gibraltar,	. . . Aug. 14.
" Gibraltar,	. . . Aug. 19;	" Tangier, Morocco,	Aug. 19.
" Tangier, Morocco,	Aug. 21;	" Funchal, Madeira,	Aug. 25.
" Funchal, Madeira,	Sept. 1;	" Provincetown,	. . . Sept. 26.
" Provincetown,	. . . Sept. 30;	" Marblehead,	. . . Sept. 30.
" Marblehead,	. . . Oct. 1;	" Boston,	. . . Oct. 1.

During the cruise the time of the cadets was as well taken up in exercise, both general and special, as the weather would permit. In port every opportunity was taken for boat exercise.

The stations of the cadets were frequently changed, to give them the chance to familiarize themselves with the different parts of the ship and the lead of its gear.

General exercise was held in the afternoon; the forenoons, after inspection and setting up drill, were usually given to instruction in marlinspike seamanship, lead of gear, heaving the lead, etc., or else exercise by watches. Particular attention was paid to instruction in navigation.

The health of the cadets was generally good. No water for drinking or cooking purposes except that distilled on board has been used. The behavior of the cadets on shore, so far as I know, was excellent; and, in fact, our consular representative at Fayal informed me that it would be his pleasure to report to the State department that in his many years' experience at that port

he had never seen a lot of boys landing from a ship conduct themselves in so exemplary a manner.

During the cruise only sundown liberty was given the cadets. There was not a single case at any port of a cadet returning from liberty under the influence of liquor.

The coal consumption for the cruise was 195 tons, 1,670 pounds, as follows : —

	Tons.	Pounds.
For steaming, . . . . .	109	1,170
For distilling and auxiliary machinery, . . . . .	81	910
For starting and banking fires, . . . . .	3	1,070
For steam launch, . . . . .	1	760
Total, . . . . .	195	1,670

The new evaporator and distiller installed last spring have given excellent results, and have worked continuously in a satisfactory manner.

The cadets were instructed as follows : —

#### SEAMANSHIP.

*Section A.* — Setting up rigging; reeving off gear; bending sail; sail making; splicing; steering; heaving lead and log; under oars and sails; duties as coxswains of boats; captains and second captains of tops; quartermasters and officers of the deck; working ship; heaving to; bracing; making and taking in sail; running lines; mooring and unmooring; securing to wharf; handling yards; shifting and reefing sail; sculling; heaving to under storm sail, and the use of oil.

*Section C.* — Knotting, splicing and sail making; setting up rigging; bending and unbending sail; reeving off gear; in boats under oars and sails; steering; working ship; handling yards; reefing; heaving lead and log; shifting sail; lookouts; securing boats for sea; sculling.

*Section E.* — Knotting; splicing and sail making; steering; heaving lead and log; lookouts; in boats under oars and sail; in parts of ship; sculling.

Also second part of Section B and Sections D and F (engineer's department) in knotting; short, cut and eye splice, and use of tackle in parts of ship; in boats under oars and sail, and as lookouts.

#### NAVIGATION.

The two senior classes. Dead reckoning; course and distance by middle latitude and Mercator's sailing; taking departure; setting courses; correcting courses; taking bearings; plotting posi-

tion; latitude by meridian; circum-meridian and ex-meridian altitudes of sun and other heavenly bodies and by pole star; time sights and longitude by sun or other heavenly body; Sumner's method by projection and calculation; observing azimuth and finding compass error; finding chronometer errors and rates; care and handling of chronometers; comparing chronometers; finding time of high water at places; use of charts of all kinds; sailing directions, tide tables, light lists and other aids to navigation; use and adjustments of instruments; danger angle; how to identify the stars; compensating compasses and barometers; practical work with artificial horizon on shore.

The third class was also given the same instruction as the two senior classes, but preference was always given the seniors in the more advanced practical work.

The new cadets were taught boxing the compass; taking departure; correcting courses; dead reckoning; elements of nautical astronomy; use of the sextant; observing the altitudes of heavenly bodies; finding latitude by meridian altitude, and how to identify the principal stars used in navigation.

Each watch of the three senior classes found the position every alternate day by dead reckoning and observation of the sun, and worked observations of the stars morning and evening when the weather was favorable. The new cadets worked dead reckoning every day on the passage home, and found the latitude by meridian altitude on alternate days. They were given almost daily practice in the use of the sextant in observing altitudes of the sun and stars.

#### ENGINEERING.

*Section B, First Part.* — In steam and water piping; firing; the care and repair of pumps; care of engines; oiling; packing of joints; adjusting valves; and in the general duties required in the engine room.

*Section B, Second Part.* — In firing; water tending; running electric light engine and dynamo; care of pumps and their repair; distilling; and general fire-room duties.

*Sections D and F.* — Coal passing; firing; cleaning boilers; instruction in the lead and use of pipes, check and other valves, and the names and uses of boiler attachments.

#### MEDICAL DEPARTMENT.

Course of instruction in first aid to injured, including how to act in presence of emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat.

unconsciousness, fainting, shocks, compression, sunstroke, starving, drunkenness, convulsions, smothering by gas, hanging, drowning, poison, dog, snake or insect bites and poison ivy; making of dressings and poultices.

The classified expenditures on cruise are indicated as follows:—

Pay roll, . . . . .	\$5,924 40
Ration bills, . . . . .	330 00
Commissary, . . . . .	1,145 85
Coal, . . . . .	800 51
Water, . . . . .	24 35
Contingent, . . . . .	173 37
Surgeon's department, . . . . .	27 39
Equipment, . . . . .	16 95
Pilotage, . . . . .	26 85
	<hr/>
	\$8,469 67
Less coal on hand on arrival at Marblehead, . . . . .	\$397 68
commissary stores on hand on arrival at Marblehead, . . . . .	554 59
stores condemned and lost, . . . . .	77 94
	<hr/>
	1,030 21
	<hr/>
Net cost of cruise, . . . . .	\$7,439 46

#### PERSONNEL.

The commission has suffered a very severe loss during the past year in the death of Rear Admiral George Eugene Belknap, U. S. N., LL.D. (retired), which occurred at Key West, Fla., on April 7, 1903. Admiral Belknap was appointed on this commission Nov. 3, 1894, and was elected chairman on June 13, 1895. During the eight consecutive years of his service in that capacity he devoted his entire time to the duties of the office, and under his supervision the school has reached its present high state of efficiency.

April 22, 1903, Rear Admiral N. M. Dyer, U. S. N. (retired), was appointed a commissioner, *vice* Rear Admiral George E. Belknap, deceased.

April 23, 1903, Rear Admiral N. M. Dyer, having qualified, was elected as chairman of the commission.

July 1, 1903, Rear Admiral N. M. Dyer was reappointed as a commissioner for three years.



The changes in the officers and instructors have been as follows :—

On Oct. 23, 1902, Commander William F. Low, U. S. N. (retired), was ordered to the command of the "Enterprise," relieving Commander E. D. Taussig, U. S. N.

On March 10, 1903, Ensign Frank B. Case, U. S. N., reported for duty as watch officer and instructor.

On Dec. 12, 1903, Ensign Frank B. Case, U. S. N., was detached.

On Jan. 1, 1904, Boatswain Patrick H. Burns, U. S. N. (retired), reported for duty as watch officer and instructor, and was appointed by the Board as acting ensign.

#### REPAIRS TO THE "ENTERPRISE."

Under the terms of the agreement by which the U. S. S. "Enterprise" was loaned to the Commonwealth of Massachusetts for the purpose of a nautical training school, the commissioners of the school are under an obligation to hold the said ship in trust for the United States government, and to keep her in good order, it being understood that the repairs to the ship shall be only such as the reasonable use and wear thereof for the purpose of said nautical training school may impose. The United States government expended \$20,000 in repairing the "Enterprise" in 1892, at the time she was turned over to the Commonwealth.

Finding that the "Enterprise" required extensive repairs before making another summer cruise, the commissioners obtained authority from the Secretary of the Navy last November for an official survey of the hull, boilers and machinery of the ship, to be made under the direction of the commandant of the Boston Navy Yard. The report of these surveys indicated the necessity for extensive repairs to the hull and to the machinery, boilers, etc., the time required for the work being sixty days.

Proposals, based upon these reports, were invited for the indicated repairs from four private ship-building firms, *i.e.*, the Fore River Ship and Engine Company, Quincy, the Atlantic Works, William McKie and John M. Brooks. The commissioners have prepared a bill asking the Legis-



lature to provide by special appropriation for these needed repairs, and pending its passage no further action has been taken upon the above proposals.

#### THE WINTER TERM.

By the courtesy of the bath commissioners of the city of Boston, the “Enterprise” is moored at the North End Park, Boston, free of expense to the Commonwealth, where she will remain during the winter term.

Instruction is now being given on board to 105 cadets, which is the total number that the ship will properly accommodate.

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would be gratified to have them visit the “Enterprise” at the above-mentioned wharf on any day excepting Saturday or Sunday, when the cadets are absent on home leave.

#### INFORMATION REGARDING GRADUATES OF THE SCHOOL.

The scarcity of competent officers available for employment on board the vessels of our merchant marine has of late been painfully apparent, and is a source of inconvenience to those interested in the mercantile marine. Masters of sailing vessels have at times found it difficult to obtain desirable men to act as first and second officers, and their efforts have been successful only after much trouble and delay. The importance of nautical training schools “for the instruction of youths in navigation and seamanship, and all matters pertaining to the proper construction, equipment and sailing of vessels,” is not likely, therefore, to be overestimated. As the vessels comprising our merchant marine continue to increase in number and size from year to year, we must have competent men to command and man them.

In returning the cadets’ “employment blanks,” sent out by the commissioners, many parents in different parts of the State expressed their confidence in the excellent opportunities afforded by the school to young men with seafaring

instincts, and the good work it is doing, as evidence by the improvement and progress made by their sons who are in the school, and in the readiness with which they are obtained employment after graduating.

The value of the instruction received by young men in this school is perhaps best shown by the fact that among the 327 graduates fully 285 have become masters, first, second and third officers, quartermasters, engineers and machinists. These graduates are now serving on board different east-wise and transatlantic steamers; also on board steamers and sailing vessels in the West Indian, South American and Pacific trade. Four graduates have received appointments as commissioned officers, while others are petty officers in the U. S. revenue cutter service. Two cadets who graduated with high marks, Frederick W. Jones of Roxbury and A. Russell Cushing of Dorchester, have served as watch officers and instructors on board the "Enterprise," and Mr. Cushing is still employed in that capacity. The U. S. navy collier service, the army transport service, and the war vessels of the navy also continue to give employment to many of the more competent graduates.

The number of graduates who are now serving as first or second officers on board large and important steamers is not only evidence of the good progress being made by them in their chosen profession, but reflects credit upon the character of the education and discipline received in the school.

Two cadets are now employed as second officers on fast steamers of the Metropolitan line, one as second officer on board a steamer of the Boston & Philadelphia S. S. Company, and one as first officer in the employ of the Merchants and Miners' Transportation Company. Two graduates are serving as third mates in the U. S. navy collier service, one on board the "Ajax" and the other on the "Caesar."

One cadet, who graduated in October, 1901, served for some months on board the S. S. "Lyra," and is at present third officer of the "Roanoke," plying between Seattle and Nome, Alaska. Last spring he was granted an unlimited license as second officer.

A recent graduate shipped as able seaman on the big

"ennebec" on a voyage from Pensacola, Fla., to Rio de Janeiro, and thence to Australia.

One graduate, who is employed as first officer on one of the large coastwise steamers, has been granted a captain's license for all steamers in all waters. He also has a first-class pilot's license for Boston, Providence, Philadelphia, Norfolk, Newport News, Baltimore, Savannah, and from New Hampshire to Georgia. In all probability this young man will be given command of one of the large steamers in the domestic trade.

On account of the increased trade with Alaska, Hawaii and eastern ports, shipping on the Pacific has experienced a vigorous growth, and many cadets entered that trade after leaving the school. A letter received by the commissioners from a graduate now employed as fourth officer on board the U. S. army transport "Thomas" states that graduates are engaged in the Pacific trade as follows: second officer S. S. "Nevadan," American-Hawaiian S. S. Company; second officer S. S. "Minnewaska;" second officer S. S. "Olympia," Northern Pacific S. S. Company; first assistant engineer U. S. army transport "Burnside;" oiler aboard the army transport "Thomas."

Another communication, received recently from a graduate serving as assistant engineer on the U. S. revenue cutter cutter "Perry," Astoria, Ore., calls attention to others employed in the Pacific as third lieutenant, revenue cutter "War:" first assistant engineer S. S. "Tremont," Boston Steamship Company; second officer S. S. "Arizonan," American-Hawaiian S. S. Company; second officer S. S. "Ohio;" master S. S. "Discovery;" and in the engine department naval collier "Nero" at Panama.

There probably never was a time when there were so many opportunities for young men entering upon a seafaring career. It is true that the shipping engaged in deep-sea trade is of very insignificant proportions,—American vessels carrying only 9.1 per cent. of our exports and imports last year,—and the opportunities in that branch of the merchant marine are, therefore, exceedingly limited; but our domestic tonnage has had a wonderful growth in recent years, and is larger than that of any other nation.

According to the report of the U. S. Commissioner of Navigation, our total documented tonnage on June 30, 1903, was larger than ever before in the history of the country. It comprised 24,425 vessels of 6,087,345 gross tons, divided in the different trades as follows: domestic trade, 5,141,037 tons; foreign trade, 879,264 tons; fisheries, 67,044 tons. This is an increase of 152 vessels of 289,443 tons over the previous year.

In the year 1861, when our foreign shipping reached the height of its prosperity, and when our tonnage was greater than that of Great Britain and nearly equal to that of the British Empire, our total documented tonnage was 5,539,813 gross tons.

During the year there have been launched from American shipyards four large transatlantic steamers, the "Finland," "Maine," "Massachusetts" and "Mississippi;" and, while ocean-going vessels to the extent of about 100,000 tons have been documented during the past two years, the foreign tonnage remains about the same, for the reason that this increase has been offset by the loss of schooners and the gradual diminution of the number of old-time square-rigged wooden vessels. The total number of square-rigged American sail vessels — ships, barks, barkentines, brigs and brigantines — on June 30, 1903, was 350, aggregating 393,713 gross tons.

Many large and swift steamers have been placed in commission on the Pacific coast within the last twelve months, and others will be added to this fleet the coming year. The two largest of these steamers are the "Minnesota" and "Dakota," now nearing completion at New London, Conn., for the Great Northern Steamship Company. These two steamers, of 21,000 tons, are the largest ever built in the United States.

#### SUMMARY.

So far as known by the commissioners, the cadets have been employed since leaving the school as follows: —

*Seamanship Class.* — Acting ensigns, 3; masters, 5; first officers, 10; second officers, 23; third officers, 5; fourth officers, 2; chief quartermasters, 3; quartermasters,



65; cadets and seamen, 50; chief yeomen, 4; third lieutenants U. S. revenue cutter service, 3; cadet revenue cutter service, 1; petty officers, revenue cutter service, 4.

*Engineer Class.*—Chief engineers, 5; first assistant engineers, 6; second assistant engineers, 15; third assistant engineers, 13; fourth assistant engineers, 2; engineers and assistant engineers, 38; engineer cadets and oilers, 44; firemen, 6; machinists, 35; electricians U. S. Navy, 5; warrant machinists U. S. Navy, 3; chief electrician, 1; electricians, 41; total engineer and seamanship class, 392.

*Class of Vessels.*—The cadets have been engaged in the following branches of service: transatlantic steamers, 82; coastwise steamers, 79; Pacific coast steamers, 12; "tramp" steamers and towboats, 17; steam yachts, 20; sailing vessels, 32; U. S. transports, 16; U. S. revenue cutter steamers, 12; U. S. Coast Survey steamers, 8; U. S. light-house steamers, 5; U. S. naval vessels, 64; U. S. naval colliers, 18; pilot boats, 5; total, 370.

### GRADUATING CLASSES.

#### *Spring Graduating Class, April, 1903.*

Bostwick, H. M.,	Seaman cadet,	Northbridge.
Baylies, E. W.,	" "	New Bedford
Clapp, L. A.,	" "	Brookton.
Chase, A. B., Jr.,	" "	New Bedford
Chandler, F. C.,	" "	Brookline.
Greeley, M. H.,	Engineer "	South Boston.
Hogan, E. J.,	" "	South Boston.
Kane, N. J.,	Seaman "	Whitman.
Liverpool, H. J.,	Engineer "	Boston.
Lemp, H. J. G.,	" "	Lynn.
McGarry, J. S.,	" "	Shrewsbury.
O'Connell, B.,	Seaman "	Peabody.
Powers, E. E.,	Engineer "	Cambridgeport.
Taisey, P. C.,	" "	Lowell.
Woodbury, M.,	Seaman "	Townsend.
Webber, C. W.,	" "	Cambridge.
Wells, R. A.,	" "	Greenfield.
Whitman, R. W.,	Engineer "	Roxbury.

#### *Autumn Graduating Class, October, 1903*

Cunningham, S.,	Seaman cadet,	Cambridge.
de L'Etoile, A. J.,	" "	Boston.
Garland, F. S.,	Engineer "	Randolph.



Hudson, G. H.,	Engineer cadet,	Somerville.
Komenda, R.,	" "	Somerville.
Lowe, H. A.,	Seaman "	Roxbury.
Mercer, E. A.,	Engineer "	Cambridge.
O'Neil, T. J.,	" "	Worcester.
Powers, R. B.,	Seaman "	Brookton.
Rideout, H. C.,	" "	Concord Junction.
Rice, L. P.,	Engineer "	Quincy.
Thompson, H. A.,	Seaman "	South Framingham.
Woodbury, V.,	" "	Townsend.

*Class to graduate April, 1904.*

Branagan, Charles,	Engineer cadet,	Worcester.
Blunt, A. C.,	" "	Charlestown.
Bessom, J. F., Jr.,	" "	Lynn.
Brown, C. R.,	" "	Dorchester.
Bowe, W. E.,	Seaman "	Roxbury.
Barnes, Cyrus,	" "	Malden.
Chick, M. T.,	Engineer "	Brookline.
Cullen, F. S.,	" "	Beverly.
Dunne, H. J.,	" "	Canton Junction.
Dunshee, G. A.,	Seaman "	Charlestown.
Iverson, A. J.,	" "	Beverly.
Johnson, L. T. W. C.,	Engineer "	Worcester.
Kinniery, H. J.,	" "	Worcester.
Marshall, P. M.,	" "	Newton.
Marshall, S. S.,	Seaman "	Newton.
McIntyre, C. L.,	Engineer "	Upton.
O'Connell, T. L.,	" "	Wakefield.
Parker, H. A.,	" "	Mattapan.
Stewart, William,	" "	Reading.
Stoddard, C. H.,	Seaman "	Worcester.
Sumner, B. M.,	" "	Dorchester.
Twombly, L. W.,	Engineer "	Jamaica Plain.
Thornton, W. J.,	Seaman "	Boston.
Welch, B. L.,	Engineer "	Lowell.
Williamson, J. F.,	" "	Brookton.
Waite, F. M.,	Seaman "	South Dartmouth.

*Class to graduate October, 1904.*

Bumpus, C. W.,	Engineer cadet,	Wakefield.
Blaisdell, L. T.,	" "	Carlisle.
Blake, S. M.,	" "	Westfield.
Blanchard, H. W.,	Seaman "	Roslindale.
Bigelow, E. R.,	" "	Bridgewater.
Coffin, Richard,	Engineer "	Nantucket.
Chadbourne, E. J.,	" "	Reading.
Driscoll, J. W.,	" "	Boston.
Danforth, W. A.,	" "	Plymouth.

Dyson, C. G.,	Engineer cadet,	North Billerica.
Fisk, C. C.,	" "	Winthrop.
Gammon, F. B.,	" "	Brockton.
Gosnay, T. F.,	" "	Wakefield.
Hill, C. A.,	" "	Melrose.
Hill, C. H., Jr.,	" "	Reading.
Holmes, L. F.,	Seaman	" Brockton.
Morgan, H. J.,	Engineer	" Wakefield.
Nolan, E. B.,	Seaman	" Somerville.
Roberts, E. C.,	" "	North Beverly.
Williams, E. W.,	Engineer	" Lynn.
Whippen, J. G.,	" "	Lynn.
Welden, G. F.,	Seaman	" Dorchester.
Young, W. E.,	" "	Charlestown.

*Class to graduate April, 1905.*

Ahern, J. J., Jr.,	Seaman cadet,	Cambridge.
Anthony, L. J.,	" "	Taunton.
Barrows, R. L.,	" "	Boston.
Bradley, R. F.,	" "	Westfield.
Cady, F. M.,	Engineer	" Lowell.
Chisholm, T. W.,	" "	North Billerica.
Clark, H. R.,	Seaman	" Middleborough.
Carver, W. R.,	" "	Brockton.
Doolittle, P. E.,	Engineer	" Greenfield.
Eldredge, A. S.,	Seaman	" Winthrop.
Gervais, A. A.,	Engineer	" Westborough.
Gridley, H. H.,	Seaman	" Dorchester.
Hallett, G. A.,	Engineer	" Somerville.
Haskell, B. L.,	" "	Gloucester.
Kinnaly, J. F. J.,	" "	South Boston.
Kelley, L. G.,	" "	Taunton.
Knowlton, A. L.,	" "	South Essex.
Lockhart, W. C.,	" "	Wakefield.
Morin, Eugene,	Seaman	" Hyde Park.
MacLaughlin, O. D.,	" "	Beverly Farms.
Noble, H. A.,	Engineer	" South Essex.
O'Brien, A. F.,	Seaman	" South Boston.
Pinkham, A. S.,	" "	Newton.
Reynolds, T. J.,	" "	Roxbury.
Shannon, H. V.,	" "	Melrose.
Slack, C. G.,	" "	Reading.
Tarr, C. F.,	Engineer	" Taunton.
Tolman, J. W.,	" "	Dorchester.
Williams, H. C.,	Seaman	" North Easton.

*Class to graduate October, 1905.*

Barry, P. C.,	Seaman cadet,	North Dighton.
Burdekin, R. W.,	Engineer	" South Framingham.

Carlton, F. G.,	Engineer cadet,	Maynard.
Crocker, J. A.,	Seaman	Nahant.
Curtin, H. P.,	" "	Taunton.
Cannon, F. H.,	" "	Lynn.
Coleman, W. A.,	" "	Dorchester.
Clarke, F. R.,	Engineer	Boston.
Hyde, C. E.,	" "	Westborough.
Kneeland, W. E. L.,	" "	Worcester.
Maynard, H. W.,	Seaman	Winthrop.
Miller, I. E.,	Engineer	Marlborough.
Mullaly, C. C.,	Seaman	Dorchester.
Moulton, L. A.,	Engineer	East Bridgewater.
Newhall, W. L. F.,	" "	Lynnfield.
O'Brien, E. R.,	Seaman	West Roxbury.
Reid, L. A.,	Engineer	Taunton.
Schwartz, Benjamin,	" "	Boston.
Savory, F. T.,	" "	Lynn.
Swan, R. I.,	" "	Dorchester.
Sullivan, F. H.,	" "	Sandwich.
Slater, S. R.,	" "	Plymouth.
Sargent, Henry,	Seaman	Worcester.
Whiton, A. E.,	Engineer	Wakefield.
Woodward, C. A.,	" "	Rockland.
Walker, F. S.,	Seaman	Roxbury.

*Cadets admitted, graduated and honorably discharged, from 1893 to 1903, Inclusive.*

	ADMITTED.			GRADUATED.			HONORABLY DISCHARGED.		
	Seaman-ship Class.	Engi-neer Class.	Total.	Seaman-ship Class.	Engi-neer Class.	Total.	Seaman-ship Class.	Engi-neer Class.	Total.
1893, . .	138	-	138	-	-	-	29	-	29
1894, . .	42	21	63	-	-	-	26	17	43
1895, . .	33	38	71	19	19	38	6	6	12
1896, . .	35	39	74	20	17	37	16	15	31
1897, . .	32	41	73	20	21	41	10	10	20
1898, . .	42	57	99	15	25	40	12	14	26
1899, . .	34	45	79	11	12	23	24	17	41
1900, . .	28	50	78	14	36	50	9	12	21
1901, . .	34	37	71	11	18	29	8	12	20
1902, . .	32	58	90	16	22	38	16	18	34
1903, . .	34	32	66	17	14	31	10	15	25
Total, .	484	418	902	143	184	327	166	136	302



## STATISTICS OF CADETS.

*Cadets admitted during the Year 1903.*

Number in the school Jan. 1, 1903:—			
Seamanship class, . . . . .		41	112
Engineer class, . . . . .		71	
Total, . . . . .			
Applications received, 1903, . . . . .		98	66
Failing to appear for examination, . . . . .	13		
Applicants examined, . . . . .	85		
Examined, . . . . .		85	
Failed to pass mental examination, . . . . .	33		
Failed to pass physical examination, . . . . .	3		
Failed to pass mental and physical examination, . . . . .	6		
Passed examinations, . . . . .	43		
Passed examinations, . . . . .	43		
Re-examined mentally and passed, . . . . .	19		
Re-examined physically and passed, . . . . .	1		
Re-examined mentally and physically and passed, . . . . .	2		
Readmitted, . . . . .	2		
Admitted as a post graduate cadet, . . . . .	1		
	68		178
Failed to qualify after passing examinations, . . . . .	2		
	66		
Total number admitted to school during 1903, . . . . .			
Seamanship class, . . . . .	34		
Engineer class, . . . . .	32		
Total number connected with the school during 1903, . . . . .			

*Cadets withdrawn during the Year 1903.*

Total number regularly graduated, . . . . .		31	73
Seamanship class, . . . . .	17		
Engineer class, . . . . .	14		
Total number granted an honorable discharge, . . . . .		25	
Seamanship class, . . . . .	10		
Engineer class, . . . . .	15		
Total number graduated and honorably discharged, . . . . .		66	
Dropped from roll, . . . . .	8		
Withdrawn, . . . . .	9		
Total number dropped, etc., . . . . .		17	
Total withdrawals during 1903, . . . . .			
Number of cadets in the school Jan. 1, 1904:—			
Seamanship class, . . . . .		44	
Engineer class, . . . . .		61	
Total, . . . . .			105



## APPROPRIATIONS.

The appropriations for the school for the year 1903, which are here accounted for, were : —

*Current Expenses.*

Appropriation, . . . . .	\$50,000 00
Extra appropriations, . . . . .	9,250 00
	<hr/>
	\$59,250 00

## Expended : —

Pay roll, . . . . .	\$25,807 35
Provisions, . . . . .	15,140 56
Text-books, instruments, etc, . . . . .	252 66
Seamanship department, . . . . .	3,846 10
Engineer department, . . . . .	8,005 16
Repairs, . . . . .	5,223 17
Miscellaneous, . . . . .	950 71

Total amount expended, . . . . .	59,229 71
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Balance unexpended, . . . . .	\$20 29
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*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
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## Expended : —

Salaries, . . . . .	\$3,434 00
Books, stationery and postage, . . . . .	594 61
Commissioners' expenses, . . . . .	384 22
Miscellaneous, . . . . .	449 20

Total amount expended, . . . . .	4,862 03
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Balance unexpended, . . . . .	\$137 97
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Respectfully submitted,

N. M. DYER, *Chairman,*

REAR ADMIRAL, U. S. N. (Retired),

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

Boston, Jan. 2, 1904.

## LEGAL AUTHORITY FOR THE SCHOOL.

## AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine engineering and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; *and provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402, ACTS OF 1891.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of

this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECTION 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished

by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECTION 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding, also stating the results of the work during such year, and make such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [Approved June 11, 1891.]

## VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS.

COUNCIL CHAMBER, BOSTON, NOV. 9, 1892.

The committee on military affairs, to whom was referred the matter of the approval of the United States ship "Enterprise" for the purpose of a nautical training school, submit the following report:

E. V. MITCHELL, for the Committee.

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and where the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby—

*Ordered*, That the United States ship "Enterprise" be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*.

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk*.

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL ESTABLISHMENT.

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of "Enterprise," as a vessel suitable for the purpose.



## RECENT LEGISLATION.

[CHAPTER 171, ACTS OF 1903.]

AN ACT RELATIVE TO THE AMOUNT WHICH MAY ANNUALLY BE  
EXPENDED FOR THE MAINTENANCE OF THE MASSACHUSETTS  
NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words "not more than fifty thousand dollars," in the first and second lines, and inserting in place thereof the words:—such sum as the general court may from year to year appropriate,—so as to read as follows:—*Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

SECTION 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*]





## THIRTEENTH ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1905.



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THE STATE BOARD OF PUBLICATION

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# COMMISSIONERS

OF THE

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

---

N. M. DYER, *Chairman,*

REAR ADMIRAL, U. S. N. (RETIRED).

ROBERT B. DIXON, M.D.

HON. JOHN READ.

---

F. STANHOPE HILL, *Secretary.*



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1904.

### THE WORK OF THE YEAR.

The efficiency of the school has been satisfactorily maintained during the past year, notwithstanding that the extensive repairs made last spring necessitated an undesirable extension of the vacation at the close of the spring term.

The average number of cadets in the school from Jan. 1, 1904, to Jan. 1, 1905, has been 88. Of these, the engineer class has predominated in about the ratio of 59 to 41. Twenty-five cadets graduated in April, 16 in the engineer class and 9 in the seamanship class; and in October the graduating class numbered 20, 7 in the seamanship class and 13 in the engineer class, making a total for the year of 45; 29 engineers and 16 seamen. Practically all of these graduates obtained employment at sea very shortly after their graduation, as quartermasters, electricians, oilers, etc.

### REPAIRS TO THE "ENTERPRISE."

Favorable action having been taken by the Legislature on a resolve, approved by the Governor March 5, 1904, upon the request made by the commissioners, for an appropriation

of \$15,000 for necessary and extensive repairs to the hull, machinery and boilers of the training ship "Enterprise." a contract for the work was signed April 1, 1904, with the Atlantic works, they being the lowest bidders.

These repairs involved the laying of a new berth deck, the renewing of five deck beams of the gun deck, replacing a portion of the outside planking and calking the outside of the hull, replacing jib and flying jibboom and renewing fore and main topmasts, extensive repairs to boilers and renewal of tubes of auxiliary boiler, repairs to water piping, renewal of cadets' water-closets and bath-room, painting the ship inside and outside, with much other incidental but very necessary work. Although the most careful economy was exercised in making these repairs, the cost not only entirely exhausted the special appropriation, but left a balance, which was paid from the regular appropriation for 1904.

The work was satisfactorily completed in sixty days, the "Enterprise" leaving the yard of the Atlantic works on June 11, 1904.

#### THE SUMMER CRUISE.

After completing necessary repairs, the "Enterprise" sailed from Boston on her usual summer cruise on June 23, with a complement of 92 cadets on board. The itinerary included visits to Provincetown, Mass.; Horta, Fayal; Lisbon, Portugal; Algiers, Africa; Gibraltar; the island of Madeira; returning to Provincetown September 28, and to Boston October 3.

During these three months the cadets were kept in constant practice of the duties incident to their profession, as is clearly shown by the following extracts from the report of the superintendent, Commander William F. Low, U. S. Navy, to the commissioners:—

*Itinerary.*

Left.	Date.	Arrived.	Date.
Boston, Mass., . . .	June 23.	Provincetown, Mass., . .	June 23.
Provincetown, Mass., . .	July 1.	Horta, Fayal (Azores), .	July 18.
Horta, Fayal, . . .	July 21.	Lisbon, Portugal, . . .	July 29.
Lisbon, Portugal, . . .	Aug. 4.	Gibraltar, . . . .	Aug. 6.
Gibraltar, . . . .	Aug. 10.	Algiers, Africa, . . .	Aug 13.
Algiers, Africa, . . .	Aug. 17.	Funchal, Madeira, . . .	Aug. 25.
Funchal, Madeira, . . .	Sept. 1.	Provincetown, Mass, . .	Sept. 28.
Provincetown, Mass., . .	Oct. 3.	Boston, Mass., . . .	Oct. 3.

With the exception of a couple of gales, on the homeward passage off Bermuda, the weather during the entire cruise was remarkably good. Light airs and calms predominated, and this rendered necessary a much larger coal expenditure than was anticipated.

Exercises were carried out according to the routine, as far as practicable. The period for general exercise was changed from the afternoon to the morning hours, and the afternoon given up to detailed instruction. I am of the opinion that this change was for the better. The stations of the cadets were changed three times during the cruise, thus giving them all an opportunity to familiarize themselves with the different parts of the ship and lead of all the gear. As much time as possible was given to boat exercise in the different ports.

The health of the cadets has been generally good. No water for drinking or cooking purposes, except that distilled on board, has been used.

The location of the dynamo on the gun deck, as a part of the changes made by the late repairs, has made its all night's use at sea practicable, and has removed a constant source of danger, viz., the numerous standing oil lamps on the lower decks. It has also rendered the berthing space much cooler in hot weather. The electric light attachments, which were fitted to the binnacles just previous to the cruise, have also been a great comfort.

The improvements made last spring in the interior arrangements of the ship, such as new water-closets, shower-baths, etc., have added greatly to the well-being of the cadets.



During the cruise only sundown liberty was granted, and the behavior of the boys on shore was so generally excellent that the American minister to Portugal was kind enough to compliment the Commonwealth upon being able to send such a well-behaved lot of young fellows as its representatives on shore.

The new arrangement of the non-division of the junior cadets into seaman and engineering branches has so far worked satisfactorily. All the junior cadets, with the exception of one boy whose physical condition forbade, have had a detail in the engine or fire room during the cruise.

The cadets were instructed as follows:—

#### SEAMANSHIP.

*Section A.* — Setting up rigging; reeving off gear; bending sail; sail making; splicing; steering; heaving lead and log; under oars and sail; duties as coxswains of boats; captains and second captains of tops; quartermasters and officers of the deck; working ship; bracing; making and taking in sail; running lines; mooring and unmooring; handling yards; shifting and reefing sail; heaving to under storm sail and the use of oil.

*Section C.* — Knotting; splicing and making sail; setting up rigging; bending and unbending sail; reeving off gear; in boats under oars and sail; steering; working ship; handling yards; reefing; heaving lead and log; shifting sail; lookouts; securing boats for sea.

*Junior Cadets.* — Knotting; splicing and making sail; steering; heaving lead and log; lookouts; in boats under oars and sail; and in parts of ship.

Also second part of Section B and sections in the engineering department in knotting; short, cut and eye splice, and use of tackle in parts of ship; in boats under oars and sail, and as lookouts. .

*Navigation.* — The two senior classes. Dead reckoning; course and distance by middle latitude and Mercator's sailing; taking departure; setting courses; correcting courses; taking bearings; plotting position; latitude by meridian; circum-meridian, and ex-meridian altitude of sun and other heavenly bodies, and by pole star; time sights and longitude by sun or other heavenly body; Sumner's method by projection and calculation; observing azimuth and finding compass error; finding chronometer errors and rates; care and handling of chronometers; comparing chronometers; finding time of high water at places; use of charts of all kinds; sailing directions, tide tables, light lists and other aids to navigation; use and adjustments of instruments; danger angle; how to identify the stars; compensating compasses and barometers; practical work with artificial horizon on shore.

The third class was given the same instruction as the two senior classes, but preference was always given the seniors in the more advanced practical work.

The new cadets were taught boxing the compass ; taking departure ; correcting courses ; dead reckoning ; elements of nautical astronomy ; use of the sextant ; observing the altitudes of heavenly bodies ; finding latitude by meridian altitude, and how to identify the principal stars used in navigation.

Each watch of the three senior classes found the position every alternate day by dead reckoning and observation of the sun, and worked observations of the stars morning and evening when the weather was favorable.

The new cadets worked dead reckoning every day on the passage home, and they were given almost daily practice in the use of the sextant in observing the altitude of the sun and stars.

#### ENGINEERING.

*Section B, Part 1.* — In the care and management of auxiliary machinery ; operating distilling apparatus ; oiling ; making joints ; care and management of engines ; taking and working out indicator cards ; adjusting valves ; steam and water piping ; and general routine engine-room work.

*Section B, Part 2.* — Firing ; care and management of boilers and engines ; care and management of pumps and other auxiliary machinery ; electric wiring ; care and management of generating plant ; steam and water piping ; taking and working out indicator cards, and in the general routine work of the fire room.

*Junior Section.* — Instruction in coal passing ; firing ; care and management of boilers and surroundings ; care and preservation of coal bunkers and other metal work ; lead of pipes and their use ; names and use of sea valves, and general instruction in the names and use of boiler attachments ; steam and water piping and electric wiring ; rigging purchases for handling heavy weights at sea when making repairs.

#### MEDICAL DEPARTMENT.

Course of instruction in first aid to injured, including how to act in presence of emergency ; the use of disinfectants ; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat, unconsciousness and fainting, shocks, compression, sunstroke, starving, drunkenness, convulsions, smothering by gas, hanging, drowning, poison, dog, snake or insect bites, and poison ivy ; making dressings and poultices.

The surgeon's report shows a general gain, as follows : —

Average weight July, 127.2 pounds.  
 Average weight September 27, 130.2 pounds.  
 Average gain for cruise, 3 pounds.  
 Average height July 1, 5 feet 5.3 inches.  
 Average height September 27, 5 feet 5.7 inches.  
 Average gain for cruise, .4 of an inch.  
 Average chest measurement July 1, 32.25 inches.  
 Average chest measurement September 27, 32.50 inches.  
 Average gain chest measurement, .25 of an inch.  
 Average chest expansion July 1, 3.125 inches.  
 Average chest expansion September 27, 3.75 inches.  
 Average chest expansion gained, .625 of an inch.  
 Average arm measurement July 1, 11.75 inches.  
 Average arm measurement September 27, 11.875 inches.  
 Average gain arm measurement, .125 of an inch.  
 Average forearm measurement July 1, 10.75 inches.  
 Average forearm measurement September 27, 10.75 inches.  
 Average forearm measurement gained, none.  
 Average leg measurement July 1, 13.625 inches.  
 Average leg measurement September 27, 13.875 inches.  
 Average leg measurement gained, .25 of an inch.

These figures, while very satisfactory for a three months' cruise, do not of course show the increase in muscular tone, which is very marked. This is especially well demonstrated in the case of many of the cadets who entered at the beginning of the summer term, whose muscles at that time were soft and flabby, and at the end of the cruise were developed and firm.

The classified expenditures on the cruise are indicated as follows : —

Pay roll, . . . . .	\$4,657 92
Ration bills, . . . . .	396 00
Commissary, . . . . .	1,267 57
Coal, . . . . .	1,453 87
Water, . . . . .	34 10
Contingent, . . . . .	301 80
Surgeon's department, . . . . .	16 00
Equipment, . . . . .	23 50
Pilotage, . . . . .	30 72
	<hr/>
	\$8,181 48
Less coal on arrival at Boston, . . . . .	\$77 33
commissary stores on hand on arrival at Boston, . . . . .	620 92
stores condemned and lost, . . . . .	63 01
	<hr/>
	761 26
	<hr/>
Net cost of cruise, . . . . .	\$7,420 22

## A GOLD MEDAL AWARDED.

As a portion of the Massachusetts educational exhibit for the Louisiana Purchase Exposition at St. Louis, the commissioners prepared an exhibit of the work of this school, which presented, through the medium of about forty large photographs, ingeniously mounted and hinged in a standing cabinet, several views of the "Enterprise," the officers and instructors, and the cadets engaged in practical work in the different departments of the school, as also specimens of their work in theoretical seamanship and navigation.

Although nautical training schools are maintained in the States of New York and Pennsylvania, Massachusetts was the only State making a special exhibit of this character at St. Louis, and it was very gratifying to the commissioners to receive in November from Mr. George E. Gay, director of the Board of Managers of the Educational Department, a notification that the superior jury of the Exposition had awarded the Massachusetts Nautical Training School a gold medal for the excellence of their unique exhibit in the Massachusetts group six of the department of education.

## PERSONNEL.

The changes in the officers and instructors during the year have been as follows : —

Oct. 15, 1904, Chief Engineer F. D. Terry's resignation was accepted.

Nov. 4, 1904, Passed Assistant Engineer Robert Crawford, U. S. Navy (retired), ordered by the Navy Department to the "Enterprise" for duty as chief engineer and instructor, reported for duty.

Dec. 3, 1904, resignation of Boatswain P. H. Burns was accepted, and he was detached from the "Enterprise" by orders from the Navy Department.

Dec. 16, 1904, Mr. Joseph E. Gateley was appointed as ensign and assistant instructor.



## THE WINTER TERM.

By the courtesy of the Bath Commissioners of the city of Boston the "Enterprise" is moored at the North End Park, Boston, free of expense to the Commonwealth, where she will remain during the winter term, and instruction to the cadets is being given on board the ship.

## WINTER LECTURES.

For the purpose of interesting as well as instructing the cadets, the commissioners have arranged for a series of brief lectures and entertainments for the cadets on board the "Enterprise" during the winter.

The course was opened on the evening of November 30 by an interesting and instructive lecture given by Commissioner John Read upon "Ironclads of to-day in comparison with those of 1861," illustrated by about one hundred stereopticon views. On December 14 Mr. Stanton H. King, superintendent of the Sailors' Haven, at Charlestown, Mass., gave the cadets a talk on "Dog watches at sea." Early in January, the Rev. David Howard Tribou, D.D., chaplain United States Navy, has kindly consented to give his lecture on "The old navy and the new," illustrated by some seventy-five selected views.

The commissioners have also engaged Capt. William Seaholm, an experienced *maitre d'armes*, to give a course of fencing lessons three times each week during the winter. These lessons are proving a source of great interest to the cadets, and they are having an excellent effect upon the young men as a physical exercise.

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would be gratified to have them visit the "Enterprise" at the above-mentioned wharf on any day excepting Saturday and Sunday, when the cadets are absent on home leave.

## INFORMATION REGARDING GRADUATES OF THE SCHOOL.

The graduates of the school have met with good success in securing desirable positions in the merchant marine. The information regarding the employment of the cadets after



leaving the school, carefully collected by the commissioners, shows that about two-thirds of those passing through the school continue to follow the sea. On this record are the names of 460 graduates or ex-cadets, and of this number only 75 obtained employment on shore, and failed, so far as is known, to spend any time at sea.

In returning the cadets' "employment blanks," many parents in different parts of the State, in giving the required information, have taken occasion to express their confidence in the excellent opportunities afforded to young men with seafaring instincts by the school, and the good work it is doing, as evidenced by the improvement and progress made by their sons while on board the "Enterprise," and in the readiness with which they have obtained employment after graduating.

The value of the instruction received by young men in this school is perhaps best shown by the fact that among the 372 graduates fully 310 have become masters, first, second and third officers, quartermasters, engineers and machinists. These graduates are now serving on board coastwise and transatlantic steamers, as well as on board steam and sailing vessels in the West Indian, South American, Pacific and Asiatic trade. Others are on board yachts and "tramp" steamers. Four are commissioned officers in the United States revenue cutter service. Many graduates have found employment on the United States coast survey steamers, the light-house steamers, naval colliers, pilot boats and in the army transport service.

The number of graduates now holding positions of responsibility as first or second officers on board seagoing steamers is not only evidence of the good progress being made by these young men in their chosen profession, but reflects credit upon the character of the education and discipline they received in the school.

Mr. A. Russell Cushing, who has served as watch officer and instructor on board the "Enterprise" for the past two years, is a graduate of the school in the seaman class of October, 1902. Mr. Joseph E. Gateley, of the seaman class of 1900, has lately been appointed as watch officer and assistant instructor. The position of electrician has also been filled for many years by a graduate. Mr. John J. Hynes of Holyoke, who graduated in April, 1902, now holds that position.

A graduate of the year 1898, who was number two in his class, has been assistant engineer on board steamers of the merchant and transport service, and has lately been appointed first assistant engineer in the United States revenue cutter service. He received the highest mark among seventy applicants.

The second mate of the steamship "Morning Star," which left Boston last spring for the Pacific Ocean, where she will be used by the American Board in its work among the Micronesian Islands, graduated from this institution in October, 1900. He served in steamers of the American and Metropolitan lines before joining the missionary vessel.

Another graduate entered as third officer on board the steamship "Coya" of the Grace line, and was promoted to second officer at the end of the first trip. He was offered the position of first officer, but could not accept it as he had not at that time obtained a license for that grade.

Some of the recent graduates of the school have obtained employment as follows:—

Quartermaster, steamship "Advance," Panama Steamship Company; quartermaster, United States naval collier "Hannibal;" quartermaster, steamship "Californian," American-Hawaiian Steamship Company; quartermaster, United States army transport "Sumner;" quartermaster, steamship "Ponce," New York and Porto Rico Steamship Company; oiler, light-house tender "Mayflower;" oiler, steamship "Admiral Dewey;" quartermaster, American line; able seaman, bark "Fohhing Suey," sailing from New York to Honolulu; refrigerator engineer, steamship "St. Paul;" quartermaster, Morgan line; cadet, American line.

The commissioners believe the school is doing a valuable work for the State and for the nation in encouraging and fitting young men who have a longing for a sea life to become officers in the merchant marine. Through its graduates it is perpetuating to some extent that race of New England seamen whose skill and courageous work have done so much for the prosperity of the country in the past. The value to the nation and to the world of trained seamen will not be questioned. The progress of the world in many directions has depended largely upon the work of the men of the sea. Most of the important geographical discoveries have been made by them; and in the

promotion of a country's foreign commerce and in the maintenance of national honor abroad they are all important. The seamen of the world are the great links in the chain which unites one continent with another; they make it possible for the products of every country under the sun to be brought to our doors for our comfort and pleasure.

The great advantage to a nation of men with a sea training has been well illustrated in the present Russo-Japanese war. The hundreds of competent and well-trained young men from this school who are now serving in all parts of the world on board different merchant vessels can be called upon if they should be needed in the hour of the country's peril.

In the year 1861, when our foreign shipping reached the height of its prosperity, and when our tonnage was greater than that of Great Britain and nearly equal to that of the British Empire, our total documented tonnage was 5,539,813 gross tons. Yet to-day, when the foreign commerce of the United States has reached the great total of \$2,500,000,000 per annum, it is practically being carried under foreign flags, as the tonnage of American ships engaged in the foreign trade aggregates only 879,000 tons.

As a natural result of this condition the question of upbuilding our merchant marine is gaining a greater and more widespread importance each year. Last spring a commission of five senators and five members of the house of representatives, to be known as the Merchant Marine Commission, was appointed by Congress. The bill creating this commission provides that it shall make a thorough investigation and report to the Congress now in session what legislation is necessary to place the American merchant marine on a prosperous basis. It was also instructed to ascertain what changes, if any, were needed in our present laws to secure for our seamen greater safety and comfort. During the summer the commission has held public hearings in the large cities on the Atlantic, Pacific and Gulf coasts, and along the great lakes. Men representing all the different shipping interests have been allowed to express their views, and the final hearing was held in Washington on November 25, when departmental officials and others were present. It is earnestly to be hoped that this latest effort on the part of Congress to bring about a revival of our shipping

will be, in some degree at least, successful in encouraging the investment of capital in American shipping, in creating a new activity in the shipyards and a more general demand for American seamen.

The coastwise shipping has experienced the prosperity of past years. The shipyards of Maine have launched about the usual number of fore and aft vessels for the domestic trade, some of them being of immense size. That the five and six masted schooners have proven a profitable venture, and that they have come to stay, is evidenced by the fact that a number of these great schooners have been launched the past year.

A notable event recently occurring in connection with American shipping interests was the completion and sailing of the great Pacific liner "Minnesota," the largest vessel ever built in this country, and in point of tonnage the fourth largest vessel in the world. The vessel will ply between Seattle and ports in the Orient. The skill, ingenuity and courage of the American ship-builder may be said to have reached its highest development in the building of this steamship.

### MEMBERSHIP OF THE SCHOOL.

#### *Spring Graduating Class, April 4, 1904.*

Blunt, A. C., . . .	Engineer class,	. . .	Charlestown.
Brown, Jr., C. R., . . .	" "	. . .	Dorchester.
Barnes, Cyrus, . . .	Seaman	" . . .	Malden.
Bessom, Jr., J. F., . . .	Engineer	" . . .	Lynn.
Bowe, W. E., . . .	Seaman	" . . .	Roxbury.
Branagan, C. H., . . .	Engineer	" . . .	Worcester.
Cullen, Fred S., . . .	" "	. . .	Beverly.
Chick, M. T., . . .	" "	. . .	Brookline.
Dunne, H. J., . . .	" "	. . .	Canton Junction.
Dunshee, G. A., . . .	Seaman	" . . .	Charlestown.
Iverson, A. J., . . .	" "	. . .	Beverly.
Johnson, L. T. W., . . .	Engineer	" . . .	Worcester.
Kinnier, H. J., . . .	" "	. . .	Worcester.
Marshall, P. M., . . .	" "	. . .	Newton.
Marshall, S. S., . . .	Seaman	" . . .	Newton.
McIntyre, C. L., . . .	Engineer	" . . .	Upton.
O'Connell, T. L., . . .	" "	. . .	Wakefield.
Parker, H. A., . . .	" "	. . .	Mattapan.
Stoddard, C. H., . . .	Seaman	" . . .	Worcester.
Sumner, B. M., . . .	" "	. . .	Dorchester.



Stewart, William,	.	.	Engineer class,	.	.	Reading.
Twombly, L. W.,	.	.	" "	.	.	Jamaica Plain.
Williamson, J. F.,	.	.	Seaman	"	.	Brockton.
Waite, F. M.,	.	.	" "	.	.	South Dartmouth.
Welch, B. L.,	.	.	Engineer	"	.	Lowell.

*Fall Graduating Class, Oct. 5, 1904.*

Bumpus, C. W.,	.	.	Engineer class,	.	.	Wakefield.
Blaisdell, L. T.,	.	.	" "	.	.	Carlisle.
Bigelow, E. R.,	.	.	Seaman	"	.	Bridgewater.
Blake, S. M.,	.	.	Engineer	"	.	Westfield.
Chadbourne, E. J.,	.	.	" "	.	.	Reading.
Driscoll, J. W.,	.	.	" "	.	.	Boston.
Dyson, C. G.,	.	.	" "	.	.	North Billerica.
Danforth, W. A.,	.	.	" "	.	.	Plymouth.
Gammon, F. B.,	.	.	Seaman	"	.	Brockton.
Gosnay, T. F.,	.	.	Engineer	"	.	Wakefield.
Holmes, L. F.,	.	.	Seaman	"	.	Brockton.
Hill, Jr., C. H.,	.	.	Engineer	"	.	Reading.
Hill, C. A.,	.	.	" "	.	.	Melrose.
Morgan, H. J.,	.	.	" "	.	.	Wakefield.
Nolan, E. B.,	.	.	Seaman	"	.	Somerville.
Roberts, E. C.,	.	.	" "	.	.	North Beverly.
Welden, G. F.,	.	.	" "	.	.	Dorchester.
Whippen, J. G.,	.	.	Engineer	"	.	Lynn.
Williams, E. W.,	.	.	" "	.	.	Lynn.
Young, W. E.,	.	.	Seaman	"	.	Charlestown.

*Class to graduate April, 1905.*

Anthony, L. J.,	.	.	Seaman class,	.	.	Taunton.
Barrows, R. L.,	.	.	" "	.	.	Boston.
Cady, F. M.,	.	.	Engineer	"	.	Lowell.
Chisholm, T. W.,	.	.	" "	.	.	North Billerica.
Clark, H. R.,	.	.	Seaman	"	.	Middleborough.
Doolittle, P. E.,	.	.	Engineer	"	.	Greenfield.
Gervais, A. A.,	.	.	" "	.	.	Westborough.
Gridley, H. H.,	.	.	Seaman	"	.	Dorchester.
Kinnaly, J. F. J.,	.	.	Engineer	"	.	South Boston.
Kelley, L. G.,	.	.	" "	.	.	Taunton.
Lockhart, W. C.,	.	.	" "	.	.	Wakefield.
Morin, Eugene,	.	.	Seaman	"	.	Hyde Park.
MacLaughlin, O. D.,	.	.	" "	.	.	Beverly Farms.
O'Brien, A. F.,	.	.	" "	.	.	South Boston.
Pinkham, A. S.,	.	.	" "	.	.	Newton.
Tarr, C. F.,	.	.	Engineer	"	.	Taunton.



*Class to graduate October, 1905.*

Barry, P. C., . . . .	Seaman class, . . .	North Dighton.
Burdekin, R. W., . . .	Engineer " . . .	South Framingham.
Carlton, F. G., . . . .	" " . . .	Maynard.
Crocker, J. A., . . . .	Seaman " . . .	Nahant.
Maynard, H. W., . . . .	" " . . .	Winthrop.
Mullaly, C. C., . . . .	" " . . .	Dorchester.
Newhall, W. L. F., . . .	Engineer " . . .	Lynnfield.
O'Brien, E. R., . . . .	Seaman " . . .	West Roxbury.
Sullivan, F. H., . . . .	" " . . .	Sandwich.
Walker, F. S., . . . .	" " . . .	Roxbury.

*Class to graduate April, 1906.*

Booth, F. A., . . . . .	New Bedford.
Butler, L. B., . . . . .	Worcester.
Caldwell, A. C., . . . . .	Dorchester.
Cushman, Jr., C. E., . . . . .	Rockport.
Copeland, H. G., . . . . .	Malden.
Dolan, W. R., . . . . .	Worcester.
Flannigan, E. J., . . . . .	Wakefield.
Graves, Herbert, . . . . .	Wilmington.
Houghton, L. H., . . . . .	Worcester.
Howard, A. M., . . . . .	Chelmsford.
Hanes, C. W., . . . . .	Melrose.
Holbrook, C. A., . . . . .	Marlborough.
MacDonald, W. R., . . . . .	Neponset.
McDonald, C. B., . . . . .	Springfield.
Munroe, G. L., . . . . .	Fall River.
McKey, R. H., . . . . .	Dorchester.
Morgan, C. L., . . . . .	Beverly.
Noyes, M. N., . . . . .	Everett.
Peckham, H. I., . . . . .	Marlborough.
Roach, H. C., . . . . .	New Bedford.
Ruyter, John, . . . . .	Stoughton.
Sheedy, J. C., . . . . .	Malden.
Towle, W. F., . . . . .	Mansfield.

*Class to graduate October, 1906.*

Anderson, H. T., . . . . .	Millbury.
Ashton, W. S., . . . . .	Fall River.
Batchelder, L. K., . . . . .	Melrose.
Brigham, R. B., . . . . .	Fisherville.
Bates, P. S., . . . . .	Southville.
Brown, W. H., . . . . .	Boston.
Bosson, G. C., . . . . .	Reading.
Burbank, A. G., . . . . .	Carver.

Colony, C. E., . . . . .	Brookline.
Doherty, M. J., . . . . .	Winthrop.
Emmerton, D. S., . . . . .	Peabody.
Foster, V. M., . . . . .	East Boston.
Farrington, P. J., . . . . .	Winthrop.
Gladding, B. N. A., . . . . .	New Bedford.
Hunt, T. F., . . . . .	Lynn.
Jones, L. A., . . . . .	Middleborough.
Lee, W. H., . . . . .	Roxbury.
Nutting, C. E., . . . . .	Cambridge.
Parker, H. K., . . . . .	Malden.
Stott, W. J., . . . . .	Worcester.
Tucker, W. M., . . . . .	South Easton.
Wilmarth, F. C., . . . . .	Saundersville.
Webster, W. R., . . . . .	Worcester.

## SUMMARY.

The following tables show the different capacities in which the cadets have been employed since leaving the school, and also the branches of service in which they have been engaged, so far as known by the commissioners : —

Seaman Class.		Engineer Class.	
Masters, . . . . .	6	Chief engineers, . . . . .	6
First officers, . . . . .	10	First assistant engineers, . . . . .	3
Second officers, . . . . .	28	Second assistant engineers, . . . . .	13
Third officers, . . . . .	13	Third assistant engineers, . . . . .	10
Fourth officers, . . . . .	3	Fourth assistant engineers, . . . . .	2
Chief quartermasters, . . . . .	3	Engineers and assistant en-	
Quartermasters, . . . . .	68	gineers, . . . . .	42
Cadets and seamen, . . . . .	58	Engineer cadets and oilers, . . . . .	55
Boatswains, . . . . .	2	Firemen, . . . . .	10
Chief yeomen, . . . . .	4	Chief machinist, . . . . .	1
Acting ensigns, . . . . .	3	Machinists, . . . . .	28
Third lieutenants, revenue cut-		Machinists and warrant ma-	
ter service, . . . . .	3	chinists, United States Navy, . . . . .	6
Cadet, revenue cutter service, . . . . .	1	Chief electrician, . . . . .	1
Boat keepers, pilot boat ser-		Electricians, United States	
vice, . . . . .	5	Navy, . . . . .	5
Total, . . . . .	207	Electricians, . . . . .	44
		Total, . . . . .	226
Grand total, . . . . .			433

*Class of Vessels.*

Transatlantic steamers, . . . . .	86
Coastwise steamers, . . . . .	88
Pacific steamers, . . . . .	20
"Tramp" steamers and towboats, . . . . .	17
Steam yachts, . . . . .	21
Sailing vessels, . . . . .	32
Pilot boats, . . . . .	5
United States naval vessels, . . . . .	64
United States naval colliers, . . . . .	20
United States transports, . . . . .	16
United States revenue cutter steamers, . . . . .	12
United States coast survey steamers, . . . . .	8
United States light-house steamers, . . . . .	7

Total, . . . . .	396
On shore, . . . . .	37

433

*Cadets admitted, graduated and honorably discharged, from 1893 to 1904, Inclusive.*

	ADMITTED.			GRADUATED.			HONORABLY DIS- CHARGED.		
	Seaman- ship Class.	Engi- neer Class.	Total.	Seaman- ship Class.	Engi- neer Class.	Total.	Seaman- ship Class.	Engi- neer Class.	Total.
1893, . . . . .	133	-	133	-	-	-	29	-	29
1894, . . . . .	42	21	63	-	-	-	26	17	43
1895, . . . . .	33	38	71	19	19	38	6	6	12
1896, . . . . .	35	39	74	20	17	37	16	15	31
1897, . . . . .	32	41	73	20	21	41	10	10	20
1898, . . . . .	42	57	99	15	25	40	12	14	26
1899, . . . . .	34	45	79	11	12	23	24	17	41
1900, . . . . .	28	50	78	14	36	50	9	12	21
1901, . . . . .	34	37	71	11	18	29	8	12	20
1902, . . . . .	32	58	90	16	22	38	16	18	34
1903, . . . . .	34	32	66	17	14	31	10	15	25
1904, . . . . .	-	-	60	16	29	45	5	12	17
Total, . . . . .	-	-	962	159	213	372	171	148	319

*Employment of Graduates and Cadets honorably discharged from 1893 to 1904, Inclusive.*

GRADUATES' EMPLOYMENT.										EMPLOYMENT OF HONORABLY DISCHARGED CADETS.					
AT SEA.			ON SHORE.			UNKNOWN.			Totals.	AT SEA.			ON SHORE.		Totals.
Seaman-ship Class.	Engineer Class.		Seaman-ship Class.	Engineer Class.		Seaman-ship Class.	Engineer Class.			Seaman-ship Class.	Engineer Class.		Seaman-ship Class.	Engineer Class.	
1893, . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
1894, . . . . .	-	-	-	-	-	-	-	-	-	9	8	5	3	6	43
1895, . . . . .	16	15	3	4	-	-	-	38	1	1	1	-	3	2	12
1896, . . . . .	18	14	2	3	-	-	-	37	5	3	3	2	3	9	31
1897, . . . . .	18	15	1	5	1	1	1	41	2	2	2	3	1	5	20
1898, . . . . .	12	21	3	3	-	-	1	40	3	1	1	3	1	6	26
1899, . . . . .	7	9	2	2	2	2	1	23	4	3	2	2	1	18	41
1900, . . . . .	13	21	1	10	-	-	5	50	2	1	1	-	1	7	21
1901, . . . . .	7	9	1	5	3	3	4	29	3	3	3	-	1	5	20
1902, . . . . .	14	15	1	3	1	1	4	38	2	5	2	2	1	12	34
1903, . . . . .	12	8	4	4	1	1	2	31	5	1	5	-	4	7	25
1904, . . . . .	12	12	1	5	3	3	12	45	-	5	5	3	2	5	17
Totals, . . . . .	129	139	19	44	11	30	372		36	33	20	21	117	92	319

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1904.*

Number in the school Jan. 1, 1904:—			
Seamanship class, . . . . .		44	105
Engineer class, . . . . .		61	
Total, . . . . .			
Applications received, 1904, . . . . .		115	95
Failing to appear for examination, . . . . .	17		
Awaiting examination, . . . . .	3		
Applicants examined, . . . . .	95		
Examined, . . . . .			
Failed to pass mental examination, . . . . .	47		
Failed to pass physical examination, . . . . .	5		
Failed to pass mental and physical examinations, . . . . .	5		
Passed examinations, . . . . .	38		
Passed examinations, . . . . .	38		
Re-examined mentally and passed, . . . . .	21		
Re-examined physically and passed, . . . . .	4		
	63		
Failed to qualify after passing examinations, . . . . .	3		
	60		
Total number admitted to school during 1904, . . . . .		60	165
Total number connected with the school during 1904, . . . . .			

*Cadets withdrawn during the Year 1904.*

Total number regularly graduated, . . . . .		45	93
Seamanship class, . . . . .	16		
Engineer class, . . . . .	29		
Total number honorably discharged, . . . . .		17	
Seamanship class, . . . . .	5		
Engineer class, . . . . .	12		
Total number graduated and honorably discharged, . . . . .		62	
Dropped from roll, . . . . .	8		
Dismissed, . . . . .	1		
Withdrawn, . . . . .	22		
Total number dropped, etc., . . . . .		31	
Total withdrawals during 1904, . . . . .			
Number of cadets in the school Jan. 1, 1905, . . . . .		72	



## APPROPRIATIONS.

The appropriations for the school for the year 1904, which are here accounted for, were : —

*Current Expenses.*

Appropriation, . . . . .	\$55,000 00
Deficiency appropriations for 1903, . . . . .	3,397 03
Special appropriation for repairs, . . . . .	15,000 00
	<hr/>
	\$73,397 03

## Expended : —

Pay roll, . . . . .	\$26,320 46
Provisions, . . . . .	13,122 62
Text-books, instruments, etc., . . . . .	788 46
Seamanship department, . . . . .	5,198 11
Engineer department, . . . . .	6,602 17
Repairs, . . . . .	15,830 91
Miscellaneous, . . . . .	1,942 60
Deficiency bills, 1903, . . . . .	3,397 03

Total amount expended, . . . . .	<hr/> 73,202 36
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Balance unexpended, . . . . .	\$194 67
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*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
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## Expended : —

Salaries, . . . . .	\$3,440 00
Books, stationery and postage, . . . . .	735 81
Commissioners' expenses, . . . . .	356 26
Printing annual report, . . . . .	62 38
Miscellaneous, . . . . .	250 88

Total amount expended, . . . . .	<hr/> 4,845 33
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Balance unexpended, . . . . .	\$154 67
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Respectfully submitted,

N. M. DYER, *Chairman,*

REAR ADMIRAL, U. S. N. (Retired),

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

F. STANHOPE HILL, *Secretary.*

## LEGAL AUTHORITY FOR THE SCHOOL.

## AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402, ACTS OF 1891.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of

this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECTION 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United

States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECTION 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [*Approved June 11, 1891.*]

## VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on military affairs, to whom was referred the matter of the approval of the United States ship "Enterprise" for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby —

*Ordered*, That the United States ship "Enterprise" be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk.*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### ESTABLISHMENT.

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.



## RECENT LEGISLATION.

[CHAPTER 171. ACTS OF 1903.]

AN ACT RELATIVE TO THE AMOUNT WHICH MAY ANNUALLY BE EXPENDED  
FOR THE MAINTENANCE OF THE MASSACHUSETTS NAUTICAL TRAIN-  
ING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words "not more than fifty thousand dollars," in the first and second lines, and inserting in place thereof the words: — such sum as the general court may from year to year appropriate. — so as to read as follows: — *Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

SECTION 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*]









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FOURTEENTH ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

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JANUARY 1, 1906.



BOSTON :

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COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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N. M. DYER, *Chairman*,  
REAR ADMIRAL, U. S. N. (RETIRED).  
ROBERT B. DIXON, M.D.  
HON. JOHN READ, LATE U. S. N.

---

F. STANHOPE HILL, *Secretary*.



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1905.

### THE WORK OF THE YEAR.

During the past year the work of the Nautical Training School has been satisfactorily carried on, with an average of 81 cadets on the roster from Jan. 1, 1905, to Dec. 31, 1905. Twelve cadets graduated in April, — 5 in the engineer class and 7 in the seamanship class; and in October the graduating class numbered 8, — 5 in the seamanship class and 3 in the engineer class; making a total for the year of 20 graduates, — 10 engineers and 10 seamen.

### THE SUMMER CRUISE.

The nautical training ship "Enterprise" sailed from Boston on her usual summer cruise May 25, with a complement of 89 cadets on board. It was decided by the Commissioners that the first part of the four months usually devoted to this cruise should be passed in home waters, with a view of affording a better opportunity for exercise in boat work and preliminary training than could be obtained on deep water.

To this end the ship remained in Provincetown and in Long Island Sound until July 3, when she sailed for Horta, Island of Fayal. During the cruise the ship visited Queenstown, Ireland, Gibraltar and Madeira, returning to Provincetown September 26, and to Boston September 29.



In the accompanying abstracts from the report to the commissioners of the superintendent, Commander William F. Low, U. S. Navy, an idea will be obtained of the incidents of the cruise and of the work and conduct of the cadets during that period.

*Itinerary.*

Left.	Date.	Arrived.	Date.
New London, Conn.,	July 3.	Horta, Fayal, .	July 20.
Horta, Fayal, .	July 24.	Queenstown, Ireland,	Aug. 2
Queenstown, Ireland, .	Aug. 10.	Gibraltar, . . .	Aug. 20.
Gibraltar, . . .	Aug. 24.	Funchal, Madeira, .	Aug. 29.
Funchal, Madeira, .	Sept 2.	Provincetown, Mass,	Sept 26.
Provincetown, Mass., .	Sept. 28.	Boston, Mass., .	Sept 29.

During the cruise the time of the cadets was as well taken up in general and special exercises and instructions as the weather and other circumstances would admit. Persistent calms and light airs prevailed almost the entire cruise after leaving New London, with the exception of that time spent in the trade wind regions on the homeward passage, where the trades were found constant and steady.

The health of the cadets has been good. The behavior of the boys, both afloat and ashore, has been excellent, and has brought forth much commendation.

The new blower which was installed on the gun deck has worked satisfactorily, and has been of material benefit in ventilating the forward berth deck and fire room. This blower will be installed as a permanent fixture.

The coal consumption for the cruise was 444 tons, 186 pounds, as follows:—

	Tons.	Pounds.
For steaming, . . . . .	288	462
For distilling and lighting, . . . . .	140	1,926
For banking and starting fires, . . . . .	12	798
For steam launch, . . . . .	2	1,480
	444	186

The cadets were instructed as follows: —

### SEAMANSHIP.

Setting up rigging; reeving off gear; bending sail; sail making; steering; heaving lead and log; under oars; duties as coxswains of boats; captains of tops; quartermasters and officers of the deck; bracing; making and taking in sail; running lines; mooring and unmooring; handling yards; shifting and reefing sail; heaving to under storm sail; lookouts; securing boats for sea.

### NAVIGATION.

A. — The two senior classes: dead reckoning; course and distance by middle latitude and Mercator's sailing; taking departure; setting courses; correcting courses; taking bearings; plotting position; latitude by meridian; circum-meridian and ex-meridian altitudes of the sun and other heavenly bodies and by pole star; time sights and longitude by sun or other heavenly body; Sumner's method by projection and calculation; observing azimuth and finding compass error; finding chronometer errors and rates; care and handling of chronometers; comparing chronometers; finding time of high water at places; use of charts of all kinds; sailing directions; tide tables; light lists and other aids to navigation; use and adjustment of instruments; danger angle; how to identify the stars; compensating compasses and barometers; practical work with artificial horizon on shore.

B. — The third class was given the same instruction as the two senior classes, but preference was always given the seniors in the more advanced practical work.

C. — The junior cadets were instructed in boxing the compass and the elements of dead reckoning.

D. — Each watch of the three senior classes found the position every alternate day by dead reckoning and observation of the sun, and worked observations of the stars morning and evening, when the weather was favorable.

### ENGINEERING.

#### *First Part.*

A. — Steam and water piping; firing; the care and repair of pumps; care of engines; oiling; packing of joints; adjusting valves; lining up engines; care of evaporators; general duties required in the engine room.

*Second Part.*

*B.* — Firing; water tending; running electric light engine and dynamo; care of pumps and their repair; distilling; care of evaporators and general fire room duties.

*Junior Cadets.*

*C.* — Coal passing; firing; cleaning boilers; instruction in the lead and use of pipes, check and other valves, and the names and uses of boiler attachments.

## MEDICAL DEPARTMENT.

Course of instruction in first aid to injured, including how to act in presence of emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat, unconsciousness, fainting, shocks, compression, sunstroke, starving, drunkenness, convulsions, smothering by gas, hanging, drowning, poison, dog, snake or insect bites, and poison ivy; making of dressings and poultices.

The accompanying report, while showing very satisfactory results for a four months' cruise, does not, of course, show the increase in muscular tone, which is very marked. This is especially true in the cases of many of the cadets who entered at the beginning of the summer term, whose muscles at that time were soft and flabby, and at the end of the cruise are well developed and firm. It may safely be said this year that there is no cadet on board who has not benefited physically.

	June 9, 1905.	Sept. 25, 1905.	Gain.
Weight, . . . . .	131.8 lbs.	134.66 lbs.	2.86 lbs.
Height, . . . . .	5 ft. 6.6 in.	5 ft. 7 in.	.4 in.
Chest, . . . . .	32.5 in.	32.75 in.	.25 in.
Chest expansion, . . . .	3 in.	3.375 in.	.375 in.
Arm flexed, . . . . .	12 in.	12.125 in.	.125 in.
Girth at umbilicus, . . .	29.375 in.	29.875 in.	.5 in.
Leg, . . . . .	13.5 in.	13.75 in.	.25 in.

## COMMISSARY REPORT.

The commissary report is as follows:—

Sea stores procured in Boston, . . . . .	\$4,071 24
Stores purchased on cruise, . . . . .	1,757 98
	<hr/>
	\$5,829 22
Less stores on hand September 30, . . . . .	\$456 65
Less stores condemned and lost, . . . . .	119 46
Less ice and freight charges, . . . . .	39 07
	<hr/>
	615 18
Cost of stores consumed, . . . . .	<hr/>
	\$5,214 04
Number of ration days (83 cadets, 35 men), . . . . .	15,222
Cost per ration day, . . . . .	\$0 342

The classified expenditures on the cruise were as follows:—

Pay roll, . . . . .	\$4,573 59
Rations commuted to officers, . . . . .	396 09
Commissary, . . . . .	1,757 98
Coal, . . . . .	1,882 63
Water, . . . . .	82 91
Equipment department, . . . . .	92 37
Engineering department, . . . . .	249 56
Pilotage, . . . . .	57 51
Garbage, . . . . .	19 48
Contingent, . . . . .	329 33
	<hr/>
	\$9,441 41
Coal on hand, arrival at Boston, . . . . .	\$188 55
Commissary stores on hand, . . . . .	456 65
Stores condemned and lost, . . . . .	119 46
	<hr/>
	764 66
Net cost of cruise, . . . . .	<hr/>
	\$8,676 75

## A SECOND GOLD MEDAL AWARDED.

As noted in the annual report of 1904, a gold medal was awarded the exhibit of the work of this school at the Louisiana Purchase Exposition at St. Louis. At the close of that exhibition the commissioners received a request from the managers of the Lewis and Clark Exposition at Portland, Ore., that the exhibit of the Massachusetts Nautical Training School be shipped to Portland as a part of the Massachusetts educational exhibit. This request was cheerfully complied with, and the commissioners have lately been informed by Mr. Wilson H. Fairbank, executive commissioner for Massachusetts, that this



school has been awarded a gold medal for the excellence of its exhibit, presented through the medium of about forty large photographs, ingeniously mounted and hinged in a standing cabinet, with several views of the "Enterprise," the officers and instructors, and the cadets engaged in practical work in the different departments of the school, as also specimens of their work in theoretical seamanship and navigation.

The Massachusetts Board of Managers have also added, as a souvenir to those receiving a gold medal, a handsome silk banner, which has been presented to this commission, "with their compliments, and with thanks for the splendid exhibit prepared and entrusted to their care."

### THE WINTER TERM.

By the continued courtesy of the Bath Commissioners of the City of Boston, the "Enterprise" is moored at the wharf of the North End Park, Boston, free of expense to the Commonwealth. As usual, the ship has been housed over, thus affording comfortable quarters for instructing the cadets during the winter term.

### WINTER LECTURES.

The series of lectures inaugurated last year for the cadets proving so successful, the commissioners decided to arrange for a course for the winter of 1905-06.

The course was opened on December 7 with an entertaining lecture by Mr. J. L. Harbour, upon "Wit and Humor." The lectures to follow are one on January 11 by Prof. William H. Davis of Harvard University, the subject being "The Colorado Cañons," with numerous illustrations; one on January 25 by Mr. V. Stefanson, on "Iceland;" and one on February 8 by Commissioner John Read, upon "The Old Navy and the New," illustrated by a large number of stereopticon views. One additional lecture has not yet been fully arranged for.

### VISITING THE "ENTERPRISE."

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would



be gratified to have them visit the “Enterprise” at the North End Park on any day excepting Saturday and Sunday, when the cadets are absent on home leave.

#### PERSONNEL.

The changes in the officers and instructors during the year have been as follows : —

April 10, 1905, Ensign Creighton Churchill, U. S. N. (retired), was ordered by the Navy Department to the “Enterprise” as executive officer, *vice* Ensign William L. Varnum, U. S. N., detached.

April 20, 1905, Boatswain H. R. Brayton, U. S. N. (retired), was ordered by the Navy Department to the “Enterprise” for duty as watch officer and instructor.

May 30, 1905, the resignation of Chief Engineer Robert Crawford, passed assistant engineer, U. S. N. (retired), was accepted.

June 1, 1905, Frederic M. Ball was appointed as chief engineer for the summer cruise.

May 5, 1905, Mr. Joseph E. Gately’s temporary appointment as ensign and assistant instructor expired.

Nov. 1, 1905, Assistant Engineer Robert E. Carney, U. S. N. (retired), was ordered by the Navy Department to the “Enterprise” as chief engineer.

Nov. 1, 1905, Chief Engineer Frederic M. Ball’s resignation was accepted.

#### INFORMATION REGARDING GRADUATES OF THE SCHOOL.

An earnest effort is made by the commissioners to keep a record of the employment of the graduates of this school, the information being obtained mainly by circular letters sent to their parents at regular intervals. From the replies received it is evident that the object of the school is being largely attained in furnishing trained and competent men for deck and engine room service in the merchant marine. It is also noted that vessel owners and captains display a willingness to promote our graduates to positions of responsibility and increased emolument as the young men prove their fitness for such advancement. The commissioners have been pleased to receive

from parents many words of commendation of the work of the school.

Considering the present condition of American shipping, it is not surprising that a large number of the graduates obtain places on board coastwise steamers or on vessels belonging to the United States government, while a small per cent. find employment on board vessels in the foreign trade. This must of necessity be the case so long as our ocean-going tonnage remains at its present low ebb.

Three cadets who graduated with high marks have been appointed watch officers and instructors on board the nautical training ship "Enterprise," one of whom has been navigating officer for the past three years.

Last June Mr. John F. McGourty of Worcester passed the required examination, and was given an appointment as cadet in the U. S. revenue cutter service. This makes five graduates of the school who are in that service, four of them commissioned as lieutenants.

Two graduates of the school were in one of the most memorable maritime events of this winter, one as rescuer and the other as one of the thirteen persons saved from the perils of the sea. In response to a request by wireless telegraphy for assistance, the U. S. light house tender "Azalea," whose first officer is Mr. George E. Eaton, a graduate from this school in 1895, left New Bedford December 10 for Nantucket Shoals, to rescue the crew of the relief lightship No. 58, which had sprung a leak during a severe storm, and was in danger of foundering. An attempt was made to save the lightship by towing her to New Bedford, but after proceeding about twenty miles she filled and sank. The members of her crew, including graduate John E. Luby, the assistant engineer, were taken on board the "Azalea."

A graduate who has served in the naval collier service for three years is now third assistant engineer on board the auxiliary "Cæsar," one of the colliers engaged in the work of towing the immense dry dock "Dewey" from Chesapeake Bay to the Philippines.

The unique and disastrous experience of being captured by the war vessels of two foreign powers also came to Harold C. Rideout, a recent graduate. During the progress of the Russo-

Japanese war, while on board a large tramp steamer bound from Calcutta to Kobe, Japan, his ship was captured in the Sea of Japan by the Russian cruiser "Odessa," and after two weeks he was landed at Shanghai. While later sailing in the same vessel from Seattle to Vladivostock, he was captured by a Japanese cruiser and taken to Kobe. Thence he went in his ship seven hundred miles up the Yang-tse-Kiang River, where tea was loaded for Odessa.

A cadet who graduated in April last accepted a position on the steamship "Philadelphia" of the American line. On the second trip he was made quartermaster, and on the third voyage he was promoted to senior quartermaster.

James S. Howes of Woods Hole, who graduated from the school Oct. 15, 1900, is said to be the youngest first mate in the employ of the Boston & Philadelphia Steamship Company.

One graduate was for a time acting chief engineer of the U. S. revenue cutter "Rush," at Juneau, Alaska. He has been in the revenue cutter service for three years as assistant engineer.

Recent graduates of the school have reported that they were employed as follows:—

Quartermaster, steamship "Caracas," New York & Porto Rico Steamship Company; electrician, Eastern Steamship Company; assistant engineer, U. S. naval collier "Cæsar;" first assistant engineer, steamship "J. N. Guffy;" second mate, steamship "Ligonier;" quartermaster, steamship "Indian," Boston & Philadelphia Steamship Company; oiler, steamship "Herman Winter," Metropolitan line; steamship "Mexico," Ward line; quartermaster, naval collier "Abarenda;" quartermaster, U. S. lighthouse tender "Mayflower;" electrician, U. S. steamship "Illinois;" oiler, steamer of the New York & Porto Rico line; senior quartermaster, steamship "Philadelphia," American line; oiler, steamer of the Morgan line; oiler, steamship "Admiral Dewey;" machinist, U. S. Navy; fireman, towboat "Nathaniel Sutton;" quartermaster, American line.

While every young man should be impressed at the beginning of his career with the fact that achievement and advancement must be due entirely to his own efforts, yet the commission-ers have been glad to do what they could to secure for

graduates desirable positions at sea. To this end they mailed a circular letter last September to a number of vessel owners and agents, from which the following extracts are given : —

The Massachusetts Nautical Training School graduates in October and April of each year a varying number of young men in the engineering and seamanship classes, fitted to accept subordinate positions in the engine room and on the deck of steamers and sailing ships of our mercantile marine.

These young men pass through a two years' course of instruction in navigation, practical seamanship, marine engineering and electricity (so far as pertains to electric lighting and small motors), and make two ocean cruises of four months each on board the schoolship "Enterprise," for practical work.

The commissioners will be pleased to give you any information in regard to them which you may desire, and meanwhile send with this pamphlets giving full information concerning our school and its graduates.

#### SUMMARY.

The following tables show the different capacities at sea or in engineering duties on shore in which the cadets have been employed since leaving the school, and also the branches of service in which they have been engaged, so far as known by the commissioners : —

Seaman Class.		Engineer Class.	
Masters, . . . . .	6	Chief engineers, . . . . .	9
First officers, . . . . .	11	First assistant engineers, . . . . .	3
Second officers, . . . . .	29	Second assistant engineers, . . . . .	12
Third officers, . . . . .	13	Third assistant engineers, . . . . .	10
Fourth officers, . . . . .	3	Fourth assistant engineers, . . . . .	2
Chief quartermasters, . . . . .	4	Engineers and assistant en-	
Quartermasters, . . . . .	74	gineers, . . . . .	44
Cadets and seamen, . . . . .	55	Engineer cadets and oilers, . . . . .	58
Boatswains, . . . . .	2	Firemen, . . . . .	10
Chief yeomen, . . . . .	4	Chief machinist, . . . . .	1
Acting ensigns, U. S. N., . . . . .	3	Machinists, . . . . .	28
Third lieutenants, revenue cut-		Machinists and warrant ma-	
ter service, . . . . .	4	chinists, U. S. N., . . . . .	9
Cadet, revenue cutter service, . . . . .	1	Chief electrician, . . . . .	1
Boat keepers, pilot boat ser-		Electricians, U. S. N., . . . . .	9
vice, . . . . .	5	Electricians, . . . . .	50
Total, . . . . .	214	Total, . . . . .	246
Grand total, . . . . .			460



*Class of Vessels.*

Transatlantic steamers, . . . . .	85
Coastwise steamers, . . . . .	96
Pacific steamers, . . . . .	20
"Tramp" steamers and towboats, . . . . .	18
Steam yachts, . . . . .	22
Sailing vessels, . . . . .	33
Pilot boats, . . . . .	5
United States naval vessels, . . . . .	71
United States naval colliers, . . . . .	23
United States transports, . . . . .	16
United States revenue cutter steamers, . . . . .	13
United States coast survey steamers, . . . . .	8
United States lighthouse steamers, . . . . .	8
At sea, . . . . .	418

*Cadets admitted, graduated and honorably discharged, from 1893 to 1905,  
Inclusive.*

	ADMITTED.			GRADUATED.			HONORABLY DIS- CHARGED.		
	Seaman- ship Class.	Engi- neer Class.	Totals.	Seaman- ship Class.	Engi- neer Class.	Totals.	Seaman- ship Class.	Engi- neer Class.	Totals.
1893, . . .	138	—	138	—	—	—	29	—	29
1894, . . .	42	21	63	—	—	—	26	17	43
1895, . . .	33	38	71	19	19	38	6	6	12
1896, . . .	35	39	74	20	17	37	16	15	31
1897, . . .	32	41	73	20	21	41	10	10	20
1898, . . .	42	57	99	15	25	40	12	14	26
1899, . . .	34	45	79	11	12	23	24	17	41
1900, . . .	28	50	78	14	36	50	9	12	21
1901, . . .	34	37	71	11	18	29	8	12	20
1902, . . .	32	58	90	16	22	38	16	18	34
1903, . . .	34	32	66	17	14	31	10	15	25
1904,* . . .	—	—	60	16	29	45	5	12	17
1905,* . . .	—	—	65	10	10	20	—	—	9
Totals, . . .	—	—	1,027	169	223	392	—	—	328

\* Beginning in 1904, the cadets upon entrance are unclassified until their second year.



# MEMBERSHIP OF THE SCHOOL, GRADUATES FOR 1905, 1906 AND 1907.

## *Spring Graduating Class, April 13, 1905.*

Anthony, L. J., . . . . .	Taunton.
Barrows, R. L., . . . . .	Boston.
Cady, F. M., . . . . .	Lowell.
Chisholm, T. W., . . . . .	North Billerica.
Clark, H. R., . . . . .	Middleborough.
Gridley, H. H., . . . . .	Dorchester.
Gervais, A. A., . . . . .	Westborough.
Kelley, L. G., . . . . .	Taunton.
Kinnaly, J. F., . . . . .	South Boston.
Lockhart, W. C., . . . . .	Wakefield.
Morin, Eugene, . . . . .	Hyde Park.
Tarr, C. F., . . . . .	Taunton.

## *Fall Graduating Class, Sept. 30, 1905.*

Burdekin, R. W., . . . . .	South Framingham.
Crocker, J. A., . . . . .	Nahant.
Carlton, F. G., . . . . .	Maynard.
Maynard, H. W., . . . . .	Winthrop.
Mullaly, C. C., . . . . .	Dorchester.
Newhall, W. C. F., . . . . .	Lynnfield.
O'Brien, E. R., . . . . .	West Roxbury.
Walker, F. S., . . . . .	Roxbury.

## *Class to graduate April, 1906.*

Booth, F. A., . . . . .	New Bedford.
Butler, L. B., . . . . .	Worcester.
Caldwell, A. C., . . . . .	Dorchester.
Cushman, C. E., Jr., . . . . .	Rockport.
Copeland, H. G., . . . . .	Malden.
Dolan, W. R., . . . . .	Worcester.
Flannigan, E. J., . . . . .	Wakefield.
Graves, Herbert, . . . . .	Wilmington.
Houghton, L. H., . . . . .	Worcester.
Howard, A. M., . . . . .	Chelmsford.
Hanes, C. W., . . . . .	Melrose.
Holbrook, C. A., . . . . .	Marlborough.
MacDonald, W. R., . . . . .	Neponset.
McDonald, C. B., . . . . .	Springfield.
McKey, R. H., . . . . .	Dorchester.
Morgan, C. L., . . . . .	Beverly.
Peckham, H. I., . . . . .	Marlborough.
Roach, H. C., . . . . .	New Bedford.
Ruyter, John, . . . . .	Stoughton.
Sheedy, J. C., . . . . .	Malden.
Towle, W. F., . . . . .	Mansfield.

*Class to graduate October, 1906.*

Batchelder, L. K.,	.	.	.	.	.	.	Melrose.
Bates, P. S.,	.	.	.	.	.	.	Southville.
Brown, W. H.,	.	.	.	.	.	.	Boston.
Bosson, G. C.,	.	.	.	.	.	.	Reading.
Burbank, A. G.,	.	.	.	.	.	.	Carver.
Colony, C. E.,	.	.	.	.	.	.	Brookline.
Doherty, M. J.,	.	.	.	.	.	.	Winthrop.
Emmerton, D. S.,	.	.	.	.	.	.	Peabody.
Foster, V. M.,	.	.	.	.	.	.	East Boston.
Gladding, B. N. A.,	.	.	.	.	.	.	New Bedford.
Hunt, T. F.,	.	.	.	.	.	.	Lynn.
Jones, L. A.,	.	.	.	.	.	.	Middleborough.
Lee, W. H.,	.	.	.	.	.	.	Roxbury.
Nutting, C. E.,	.	.	.	.	.	.	Cambridge.
Stott, W. J.,	.	.	.	.	.	.	Worcester.
Wilmarth, F. C.,	.	.	.	.	.	.	Saundersville.
Webster, W. R.,	.	.	.	.	.	.	Worcester.

*Class to graduate April, 1907.*

Baxter, Thomas,	.	.	.	.	.	.	South Dennis.
Chick, H. L.,	.	.	.	.	.	.	Beverly.
Coughlan, F. M.,	.	.	.	.	.	.	North Dartmouth.
Chaney, E. E.,	.	.	.	.	.	.	Arlington Heights.
Doll, G. O.,	.	.	.	.	.	.	East Boston.
Early, R. V.,	.	.	.	.	.	.	Newton Lower Falls.
Gerrard, R. T.,	.	.	.	.	.	.	Springfield.
Garity, Herbert,	.	.	.	.	.	.	Charlestown.
La Montague, L. L.,	.	.	.	.	.	.	Miller's Falls.
Lewis, D. C. C.,	.	.	.	.	.	.	New Bedford.
Lunt, W. H.,	.	.	.	.	.	.	Groveland.
Matthews, W. E.,	.	.	.	.	.	.	Worcester.
Merriam, P. W.,	.	.	.	.	.	.	Greenfield.
McDonald, C. E.,	.	.	.	.	.	.	Dorchester.
McDonald, C. S.,	.	.	.	.	.	.	Malden.
Parker, G. L.,	.	.	.	.	.	.	Reading.
Perley, A. E.,	.	.	.	.	.	.	Wakefield.
Perley, J. A.,	.	.	.	.	.	.	Lynnfield.
Smith, Norman,	.	.	.	.	.	.	Andover.
Smith, W. L.,	.	.	.	.	.	.	Ashburnham.
Stone, C. L.,	.	.	.	.	.	.	Melrose Highlands.
Small, E. B.,	.	.	.	.	.	.	North Truro.
Smith, P. R.,	.	.	.	.	.	.	Concord.
Stephenson, R. R.,	.	.	.	.	.	.	East Whitman.
Sherman, G. S.,	.	.	.	.	.	.	Jamaica Plain.
Saville, L. B.,	.	.	.	.	.	.	Lexington.
Sharp, W. D.,	.	.	.	.	.	.	Lanesville.
Stickney, G. H.,	.	.	.	.	.	.	Worcester.
Thurston, J. C., Jr.,	.	.	.	.	.	.	Grafton.

Whitney, L. G.,	.	.	.	.	.	.	Dorchester.
Wilder, H. P.,	.	.	.	.	.	.	Marlborough.
Wier, J. R.,	.	.	.	.	.	.	Saundersville.
Walker, L. A.,	.	.	.	.	.	.	Whitman.

*Class to graduate October, 1907.*

Biathrow, C. A.,	.	.	.	.	.	.	Malden.
Bragg, A. E.,	.	.	.	.	.	.	Woods Hole.
Carr, A. L.,	.	.	.	.	.	.	Concord Junction.
Colby, W. H.,	.	.	.	.	.	.	Melrose.
Damon, P. L.,	.	.	.	.	.	.	West Hanover.
Green, H. D.,	.	.	.	.	.	.	Duxbury.
Gifford, W. M.,	.	.	.	.	.	.	Woods Hole.
Hazelton, C. I.,	.	.	.	.	.	.	Amesbury.
Hartwell, C. E.,	.	.	.	.	.	.	Worcester.
Johnson, W. F.,	.	.	.	.	.	.	Auburndale.
King, C. F.,	.	.	.	.	.	.	North Adams.
King, R. R.,	.	.	.	.	.	.	Springfield.
McMillan, W. E. R.,	.	.	.	.	.	.	Pittsfield.
Marcy, P. B.,	.	.	.	.	.	.	Boston.
March, R. I.,	.	.	.	.	.	.	Haverhill.
Osgood, S. P.,	.	.	.	.	.	.	Middleborough.
Reilly, J. J.,	.	.	.	.	.	.	Dorchester.
Robinson, M. H.,	.	.	.	.	.	.	Haverhill.
Southwick, L. W.,	.	.	.	.	.	.	Peabody.
Sears, F. L.,	.	.	.	.	.	.	East Dennis.
Simonds, C. W.,	.	.	.	.	.	.	Charlestown.
Ware, S. H.,	.	.	.	.	.	.	Peabody.
West, R. C.,	.	.	.	.	.	.	Wakefield.
Youngs, S. G.,	.	.	.	.	.	.	Brookline.

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1905.*

Number in the school Jan. 1, 1905:—			
Seamanship class, . . . . .			14
Engineer class, . . . . .			12
Nautical cadets, . . . . .			46
Total, . . . . .			72
Applications received, 1905, . . . . .			92
Failing to appear for examination, . . . . .	15		
Unsatisfactory recommendations, . . . . .	4		
Applicants examined, . . . . .	73		
Examined, . . . . .			73
Failed to pass mental examination, . . . . .	20		
Failed to pass physical examination, . . . . .	3		
Failed to pass mental and physical examinations, . . . . .	5		
Passed examinations, . . . . .	45		
Passed examinations, . . . . .	45		
Re-examined mentally and passed, . . . . .	16		
Re-examined physically and passed, . . . . .	2		
Re-examined mentally and physically and passed, . . . . .	2		
Readmitted, . . . . .	1		
	66		
Failed to qualify after passing examinations, . . . . .	1		
	65		
Total number admitted to school during 1905, . . . . .			65
Total number connected with the school during 1905, . . . . .			137

*Cadets withdrawn during the Year 1905.*

Total number regularly graduated, . . . . .			20
Seamanship class, . . . . .	10		
Engineer class, . . . . .	10		
Total number honorably discharged, . . . . .			9
Seamanship class, . . . . .	2		
Engineer class, . . . . .	3		
Nautical cadets, . . . . .	4		
Total number graduated and honorably discharged, . . . . .			29
Dropped from roll, . . . . .	5		
Dismissed, . . . . .	1		
Withdrawn, . . . . .	7		
Total number dropped, etc., . . . . .			13
Total withdrawals during 1905, . . . . .			42
Number of cadets in the school Jan. 1, 1906, . . . . .			95
Seamanship class, . . . . .	16		
Engineer class, . . . . .	21		
Nautical cadets, . . . . .	58		

*Employment of Graduates and Cadets honorably discharged from 1893 to 1905, Inclusive.*

	GRADUATES' EMPLOYMENT.						EMPLOYMENT OF HONORABLY DISCHARGED CADETS.					
	AT SEA.		ON SHORE.		UNKNOWN.		AT SEA.		ON SHORE.		UNKNOWN.	
	Seaman-ship Class.	Engl-ner Class.	Seaman-ship Class.	Engl-ner Class.	Seaman-ship Class.	Engl-ner Class.	Seaman-ship Class.	Engl-ner Class.	Seaman-ship Class.	Engl-ner Class.	Seaman-ship Class.	Engl-ner Class.
	Totals.		Totals.		Totals.		Totals.		Totals.		Totals.	
1893,	.	.	-	-	-	-	-	-	-	-	29	-
1894,	.	.	-	-	-	-	9	8	5	3	12	6
1895,	.	.	16	15	-	38	1	1	-	3	5	2
1896,	.	.	18	14	-	37	5	3	2	3	9	9
1897,	.	.	18	15	1	41	2	2	3	1	5	7
1898,	.	.	12	21	-	40	3	1	3	1	6	12
1899,	.	.	7	9	2	23	4	3	2	1	18	13
1900,	.	.	13	21	-	50	2	1	-	1	7	10
1901,	.	.	7	9	3	29	3	3	-	1	5	8
1902,	.	.	14	15	1	38	2	5	2	1	12	12
1903,	.	.	12	8	4	31	5	1	-	4	7	8
1904,	.	.	12	12	3	45	-	5	3	2	2	5
1905,	.	.	3	5	3	20	-	1	-	1	2	1
Totals,	132	144	23	48	14	392	36	34	20	22	119	93
												4
												328

NOTE. — The explanation of the difference between "418 cadets at sea," on page 17, and total number of graduates and cadets "honorably discharged at sea," given on page 22 as 346, is represented by 72 cadets dropped or withdrawn from the school without an honorable discharge in twelve years.



## APPROPRIATIONS.

The appropriations for the school for the year 1905, which are here accounted for, were : —

*Current Expenses.*

Appropriation, . . . . .	\$55,000 00
Expended : —	
Pay roll, . . . . .	\$26,531 30
Provisions, . . . . .	14,123 15
Text-books, instruments, etc., . . . . .	493 96
Seamanship department, . . . . .	3,845 76
Engineer department, . . . . .	5,525 74
Repairs, . . . . .	3,818 81
Miscellaneous, . . . . .	622 26
Total amount expended, . . . . .	54,960 98
Balance unexpended, . . . . .	\$39 02

*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
Expended : —	
Salaries, . . . . .	\$3,440 02
Books, stationery and postage, . . . . .	677 42
Commissioners' expenses, . . . . .	449 99
Printing annual report, . . . . .	71 61
Miscellaneous, . . . . .	257 87
Total amount expended, . . . . .	4,896 91
Balance unexpended, . . . . .	\$103 09

Respectfully submitted,

N. M. DYER, *Chairman.*

REAR ADMIRAL U. S. N. (Retired),

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

F. STANHOPE HILL, *Secretary.*

## LEGAL AUTHORITY FOR THE SCHOOL.

## AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402, ACTS OF 1891.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of

this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECTION 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United

States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECTION 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [*Approved June 11, 1891.*]

## VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on military affairs, to whom was referred the matter of the approval of the United States ship "Enterprise" for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby —

*Ordered*, That the United States ship "Enterprise" be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk.*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### ESTABLISHMENT.

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.

## RECENT LEGISLATION.

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[CHAPTER 171, ACTS OF 1903.]

AN ACT RELATIVE TO THE AMOUNT WHICH MAY ANNUALLY BE EXPENDED  
FOR THE MAINTENANCE OF THE MASSACHUSETTS NAUTICAL TRAIN-  
ING SCHOOL.

*Be it enacted, etc., as follows :*

SECTION 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words “not more than fifty thousand dollars,” in the first and second lines, and inserting in place thereof the words : — such sum as the general court may from year to year appropriate, — so as to read as follows : — *Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth ; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

SECTION 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*]





## FIFTEENTH ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1907.



BOSTON:

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# COMMISSIONERS

OF THE

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

---

GEORGE F. F. WILDE, *Chairman*,  
REAR ADMIRAL, U. S. N. (RETIRED).

ROBERT B. DIXON, M.D.

HON. JOHN READ, LATE U. S. N.

---

F. STANHOPE HILL, *Secretary*,  
LATE U. S. N.



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1906.

### THE WORK OF THE YEAR.

During the past year the work of the Nautical Training School has been satisfactorily carried on, with an average of 84 cadets on the roster from Jan. 1, 1906, to Dec. 31, 1906. There have been 145 cadets connected with the school during the year. Twenty-one cadets were graduated in April, — 11 in the engineer class and 10 in the seamanship class; and in October the graduating class numbered 14, — 6 in the seamanship class and 8 in the engineer class; making a total for the year of 35 graduates, — 19 engineers and 16 seamen.

### THE SUMMER CRUISE.

The training ship "Enterprise" sailed from Boston on her usual summer cruise May 31, with a complement of 85 cadets on board. It was decided by the commissioners that the first part of the four months usually devoted to this cruise should be passed in home waters, with a view of affording a better opportunity for exercise in boat work and preliminary training than could be obtained in deep water.

To this end the "Enterprise" remained in Provincetown until June 11, when she returned to Boston. The ship was

inspected by the Governor and Council, accompanied by the commissioners of the school, on June 13, when the "Enterprise" went down the bay, and the cadets were exercised in the various evolutions of reefing, making and taking in sail, fire drill, etc. Sailing from Boston on June 16, the following European ports were visited: Havre, France; Gibraltar; Algiers, Algeria; and Funchal, Madeira, returning to Boston on Sept. 29, 1906.

In the accompanying abstracts from the report of the superintendent, Commander William F. Low, U. S. N., to the commissioners, an idea will be obtained of the incidents of the cruise and of the work and conduct of the cadets during that period.

*Itinerary.*

Left.	Date.	Arrived.	Date.
Boston, . . . .	June 16	Havre, France, . .	July 15
Havre, France, . .	July 26	Gibraltar, . . . .	Aug. 6
Gibraltar, . . . .	Aug. 13	Algiers, Algeria, . .	Aug. 17
Algiers, Algeria, . . .	Aug. 19	Funchal, Madeira, . .	Aug. 28
Funchal, Madeira, . .	Sept. 1	Provincetown, . . .	Sept. 28
Provincetown, . . .	Sept. 28	Boston, . . . .	Sept. 29

During the cruise the time of the cadets was as well taken up in general and special exercises and instruction as the weather and other circumstances would permit. The passage across to Havre was wet and disagreeable, which did not operate favorably for exercise, but at no time during the entire cruise was it boisterous, so that, on the whole, the weather conditions might be pronounced very good.

The health of the cadets was, on the whole, fairly good. There were no serious accidents or injuries, and while a number of cases of malaria developed, they were in all instances confined to cadets who had had similar attacks before entering the school. There was practically no diarrhœa, which was largely owing to the use of distilled water.

The coal consumption for the cruise was 474 tons, 1,939 pounds, as follows: —

	Tons.	Pounds.
For steaming, . . . . .	298	712
For distilling and lighting, . . . . .	162	647
For banking and starting fires, . . . . .	14	580
	474	1,939

The cadets were instructed as follows : —

#### SEAMANSHIP.

Setting up rigging ; reeving off gear ; bending sail ; sail making ; steering ; heaving lead and log ; under oars ; duties as coxswains of boats ; captains of tops ; quartermasters and officers of the deck ; bracing ; making and taking in sail ; running lines ; mooring and unmooring ; handling yards ; shifting and reefing sail ; heaving to under storm sail ; lookouts ; securing boats for sea ; wearing ship ; knotting and splicing ; unbending sail ; reefing courses and topsails ; stations for evolutions under sail ; care and cleaning of bilges ; ground tackle ; sending up and down yards and spars ; standing rigging.

#### SIGNALS.

During the cruise, cadets received daily instruction in signals ; International code, including the following : procedure when signaling passing vessels ; urgent and important signals ; signals of distress ; distant signals and the general vocabulary ; army and navy wig-wag code.

#### NAVIGATION.

A. — The two senior classes : dead reckoning ; course and distance by middle latitude and Mercator's sailing ; taking departure ; setting courses ; correcting courses ; taking bearings ; plotting position ; latitude by meridian ; circum-meridian and ex-meridian altitudes of the sun and other heavenly bodies and by pole star ; time sights and longitude by sun or other heavenly body ; Sumner's method by projection and calculation ; observing azimuth and finding compass error ; finding chronometer errors and rates ; care and handling of chronometers ; comparing chronometers ; finding time of high water at places ; use of charts of all kinds ; sailing directions ; tide tables ; light lists and other aids to navigation ; use and adjustments of instruments ;



danger angle; how to identify the stars; compensating compasses and barometers; practical work with artificial horizon on shore.

*B.* — The third class was given the same instruction as the two senior classes, but preference was always given the seniors in the more advanced practical work.

*C.* — The junior cadets were instructed in boxing the compass and the elements of dead reckoning.

*D.* — Each watch of the three senior classes found the position every alternate day by dead reckoning and observation of the sun, and worked observations of the stars morning and evening, when the weather was favorable.

#### ENGINEERING.

##### *First Part.*

*A.* — Steam and water piping; firing; the care and repair of pumps; care of engines; oiling; packing of joints; adjusting valves; lining up engines; care of evaporators; general duties required in the engine room.

##### *Second Part.*

*B.* — Firing; water tending; running electric light engine and dynamo; care of pumps and their repair; distilling; care of evaporators and general fire room duties.

##### *Junior Cadets.*

*C.* — Coal passing; firing; cleaning boilers; instruction in the lead and use of pipes, check and other valves, and the names and uses of boiler attachments.

#### MEDICAL DEPARTMENT.

Course of instruction in first aid to injured, including how to act in presence of emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat, unconsciousness, fainting, shocks, compression, sunstroke, starving, drunkenness, convulsions, smothering by gas, hanging, drowning, poison, dog, snake or insect bites, and poison ivy; making of dressings and poultices.

The health of the cadets has been fairly good, and the gains are shown by the following table, the measurements being taken early in June and again September 26. While these figures are satisfactory, they do not, of course, show the improvement in muscular tone, which has been marked. Boys who came here in May, 1906, pale and with flabby muscles and excessive adipose tissue, have now a good color and firm, hard muscles.

	June.	September.	Gain.
Height, . . . . .	5 ft. 8.13 in.	5 ft. 8.21 in.	.08 in.
Chest, . . . . .	32.11 in.	32.75 in.	.64 in.
Chest expansion, . . . .	34.58 in.	35.65 in.	1.07 in.
Arm, . . . . .	11.20 in.	11.35 in.	.15 in.
Abdominal umbilicus, . .	29.52 in.	30.09 in.	.57 in.
Leg (calf), . . . . .	12.75 in.	13.00 in.	.25 in.
Weight, . . . . .	131.50 lbs.	135.75 lbs.	4.25 lbs.

## COMMISSARY REPORT.

The commissary report is as follows: —

Cost of stores consumed, . . . . .	\$5,465 62
Number of rations issued, . . . . .	14,944 00
Cost per ration, . . . . .	\$0 365

The classified expenditures on the cruise were as follows: —

Pay roll, . . . . .	\$5,234 64
Servants' rations commuted to officers, . . . . .	381 00
Commissary, . . . . .	1,296 00
Coal and water, . . . . .	2,041 05
Equipment department, . . . . .	104 20
Engineering department, . . . . .	149 46
Pilotage and port charges, . . . . .	100 31
Ashes and garbage, . . . . .	43 68
Contingent, . . . . .	372 15
Medical department, . . . . .	39 25
Navigator's department, . . . . .	1 10
	<hr/>
	\$9,762 84
Coal on hand, arrival in Boston, . . . . .	\$368 64
Commissary stores on hand, . . . . .	983 76
Stores condemned, . . . . .	91 15
	<hr/>
	1,443 55
	<hr/>
Net cost of cruise, . . . . .	\$8,319 29

## THE WINTER TERM.

By the continued courtesy of the bath commissioners of the city of Boston, the "Enterprise" is moored for the winter at the wharf of the North End Park, Boston, free of expense to

the Commonwealth. As usual, the ship has been housed over, thus affording comfortable quarters for instructing the cadets during the winter term.

### VISITING THE "ENTERPRISE."

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would be gratified to have them visit the "Enterprise" at the North End Park on any day excepting Saturday and Sunday, when the cadets are absent on home leave.

### PERSONNEL.

The changes in commissioners, officers and instructors during the year, have been as follows:—

Feb. 2, 1906, the resignation of Rear Admiral N. M. Dyer, U. S. N. (retired), chairman of the Board, was accepted by the Governor.

Feb. 7, 1906, Rear Admiral George F. F. Wilde, U. S. N. (retired), was appointed by the Governor and confirmed by the Executive Council as a member of the Nautical Training School Commission. On February 21 Rear Admiral Wilde was elected chairman of the commission.

Oct. 9, 1906, the resignation of Chief Engineer Robert E. Carney, assistant engineer, U. S. N. (retired), was accepted.

Oct. 15, 1906, Mr. Webb C. Maglathlin was appointed chief engineer of the "Enterprise."

### GRADUATES AS OFFICERS AND INSTRUCTORS.

Following the example of other technical schools, the Commissioners of the Massachusetts Nautical Training School for several years have kept in view the idea of obtaining officers and instructors for the "Enterprise" from the competent graduates of the school.

To that end, in 1904 Mr. A. R. Cushing, who graduated in 1902, and had been a watch officer on board the "Enterprise" for two years, was promoted to the highly responsible place of navigating officer and instructor. It is gratifying to find that in this position Mr. Cushing has gained the entire approval of

the superintendent, Commander William F. Low, U. S. N., who considers Mr. Cushing an excellent navigator and instructor.

Mr. Webb C. Maglathlin, a graduate of the school in the class of 1896, has this year been appointed chief engineer of the "Enterprise." Mr. Maglathlin's technical knowledge of engineering was thoroughly well proved by his passing number one last autumn in a four days' examination for admission to the United States revenue cutter service.

Another graduate of the school, Mr. George C. Bosson, has been appointed an instructor in mathematics.

#### INFORMATION REGARDING GRADUATES OF THE SCHOOL.

A large number of the graduates of the school during the past twelve years have obtained and held responsible positions at sea, and, considering the enfeebled condition of the foreign merchant marine, the showing is a remarkably creditable one. The percentage of graduates who continue to follow the sea after leaving the school is increasing. Fifty-seven per cent. of the graduates of 1906 continued their seafaring career. In almost every instance where a cadet's sea service is continuous after graduating, he is making good progress, and is being promoted from time to time to better and more responsible positions. The American mercantile marine furnishes many opportunities for young men of average intelligence and good character who desire to follow the sea. There never was a time when there was a better opportunity for a young man with a natural aptitude for the sea to work his way up through the positions of seaman, quartermaster and mate to that of master. Fortunately for the nation, restrictive navigation laws have enabled the country to retain and develop the largest and finest fleet of coastwise vessels in the world. It is a matter for regret that the opportunities are so limited for those who desire employment on board deep water vessels. However, the line of transatlantic steamers from New York, the vessels sailing to the West Indies, and between this country and the Hawaiian Islands, the Philippines and the Orient, with a few scattering square riggers in the South American and Pacific trade, have furnished ready employment for every graduate



who in recent years has really desired to make his home on blue water.

Two graduates informed the commissioners recently that they had obtained unlimited licenses as master, and another that he had received a license as chief engineer.

The following graduates of the school have entered the revenue cutter service: —

Frank W. Smith, appointed a cadet May 20, 1896, retired as third lieutenant; Franklin B. Harwood, appointed a cadet Aug. 7, 1899, and is now a second lieutenant; Philip W. Lauriat, appointed a cadet June 18, 1900, and is now a second lieutenant; James A. Alger, appointed a cadet Aug. 4, 1902, and is now a second lieutenant; Lorenzo C. Farwell, appointed acting assistant engineer May 31, 1902; Joseph E. Sheedy, appointed second assistant engineer July 2, 1904; John F. McGourty, appointed a cadet June 27, 1905; William F. Towle, appointed a cadet May 10, 1906.

Mr. E. Newton Parker of Greenfield, who was graduated Oct. 15, 1900, received in March last an unlimited license as master. He stood number one in his graduating class, and received a master's license when not quite twenty-four years of age. Cadet Parker has served as quartermaster, second and first officer in the naval auxiliary service. He received a commendatory letter from the commanding officer of the "Hannibal."

Mr. George P. Carver, who graduated April 20, 1896, wrote the commissioners on August 9 as follows: —

I entered the employ of the Florida East Coast Railway as an assistant engineer in September, 1905. In June, 1906, was appointed engineer-in-charge of the engineering and construction of a viaduct two miles in length, running between two of the Florida Keys. This viaduct is composed of 180 clear spans of reinforced concrete arches, and will cost to construct considerably over a million dollars. The work is in connection with the Key West extension of this road, and runs between Miami, Florida, and Key West, over and between the Florida Keys. I will eventually, as the work progresses, have eight large quarter boats, capable of accommodating a total of 1,200 men; other floating equipment will include working units necessary for the construction work, aggregating in cost one-quarter million dollars. I have drawn the detailed plans of this work and devised many of the methods for doing the work.



The work is of national importance, and the privilege of being associated with it is one that any young engineer might well desire. I owe a great deal of my success to the training I received on the "Enterprise."

A cadet who graduated in April, 1897, received his certificate as second mate in 1901, obtained a first mate's license in 1903, and is about to be examined for a master's certificate. He has been employed on board steamers in the European and South American trade as third mate, second mate and first mate.

The commissioners regret to report the death of one of the earliest and most promising graduates. Harold M. Davie, third officer of the United States transport "Thomas," died at sea Nov. 11, 1906, while the ship was en route from Manila to San Francisco. Cadet Davie graduated in October, 1896, and had been following the sea continuously since that time. He had served with credit as an officer on board steamers of the American line, and the coast survey and transport services, for the past six years on the Pacific. During the Spanish-American war he was on board the U. S. S. "St. Louis," receiving a medal for bravery while under fire in cutting the cables off Santiago. He was quartermaster in the American line, an officer on board the coast survey steamer "Pathfinder," and second officer of the transport "Research" in the Philippines.

In order to answer in a measure many inquiries regarding the present employment of recent graduates of the school, the following list is given : —

Second officer, Panama Steamship Company ; second officer, Boston & Philadelphia Steamship Company ; second officer, New York & Porto Rico Steamship Company ; second officer, Pacific Mail Steamship Company ; second officer, United States naval auxiliary "Leonidas;" third officer, steamship "Dakota," Great Northern Steamship Company ; third officer, naval auxiliary "Iris;" third officer, Clyde Steamship Company ; third officer, steamship "Seattle," plying between Seattle and Alaska ; third officer, naval auxiliary "Brutus;" seaman, lighthouse steamer "Mayflower;" seaman, United States steamer "Missouri;" quartermaster, steamship "Persia," Boston & Philadelphia Steamship Company ; cadet, American

line; quartermaster, naval auxiliary "Arethusa;" assistant engineer, steamship "Brutus;" engineer, United States lightship; electrician, nautical training ship "Enterprise;" electrician, United States steamer "Connecticut;" second-class machinist, United States navy; oiler, steamer "Cape Ann," Boston & Gloucester Steamship Company; third assistant engineer, naval auxiliary "Hannibal;" electrician, naval auxiliary "Abarenda;" nautical experts in Hydrographic Office, Navy Department, Washington, D. C.

With the expansion of the nation's foreign commerce, and the revival of shipping, the work of the training ship in fitting young men for sea service becomes of increasing value. Since 1756 Great Britain has maintained in operation one or more nautical schoolships. The nations of Europe, especially England and Germany, are at present strengthening their system of training ships, and are placing in operation plans for keeping their merchant ships supplied with native seamen. If we are to compete in the race for supremacy on the sea, a system of training ships must be maintained at the highest degree of efficiency.

On August 7 of this year the one hundredth anniversary of the adoption of steam navigation will have been reached, and yet the sailing vessel is still found to be eminently useful in many lines of trade. Indeed, it is improbable that vessels of this type will ever entirely disappear from the ocean, and unless a less expensive fuel than coal is discovered, and is easily obtainable, it is probable that these vessels will increase rather than diminish in the future.

The American youth with a taste and longing for the sea will not receive the highest encouragement, nor will the stars and stripes take its rightful place in the commerce of the world, until Great Britain's magnificent system of steamship lines to the four continents of the world and her great fleet of tramp steamers have their counterpart in America. The men of the sea, from our earliest history, have been a most important element in the strength of the nation, and the race of American seamen, noted in the past for courage, versatility and strong and rugged character, should not be allowed to die out.

## SUMMARY.

The commissioners would call attention to the following table, compiled from our record of graduates, showing that nearly 500 cadets of this school have obtained and filled responsible positions in the mercantile marine and United States government service since the first class graduated in 1895.

Seaman Class.	Engineer Class.
Masters, . . . . . 6	Chief engineers, . . . . . 9
First officers, . . . . . 12	First assistant engineers, . . . . . 3
Second officers, . . . . . 32	Second assistant engineers, . . . . . 12
Third officers, . . . . . 16	Third assistant engineers, . . . . . 12
Fourth officers, . . . . . 2	Fourth assistant engineers, . . . . . 2
Chief quartermasters, . . . . . 4	Engineers and assistant en-
Quartermasters, . . . . . 77	gineers, . . . . . 45
Cadets and seamen, . . . . . 56	Engineer cadets and oilers, . . . . . 61
Boatswains, . . . . . 2	Firemen, . . . . . 10
Chief yeomen, . . . . . 4	Chief machinist, . . . . . 1
Acting ensigns, United States	Machinists, . . . . . 27
navy, . . . . . 3	Machinists and warrant ma-
Second lieutenants, revenue	chinists, United States navy, . . . . . 11
cutter service, . . . . . 2	Chief electrician, . . . . . 1
Third lieutenants, revenue cut-	Electricians, United States
ter service, . . . . . 2	navy, . . . . . 14
Cadets, revenue cutter service, . . . . . 2	Electricians, . . . . . 49
Boat keepers, pilot boat ser-	
vice, . . . . . 5	
Total, . . . . . 225	Total, . . . . . 257
Grand total, . . . . .	482

*Class of Vessels.*

Transatlantic steamers, . . . . .	90
Coastwise steamers, . . . . .	101
Pacific steamers, . . . . .	20
"Tramp" steamers and towboats, . . . . .	18
Steam yachts, . . . . .	22
Sailing vessels, . . . . .	33
Pilot boats, . . . . .	5
United States naval vessels, . . . . .	76
United States naval auxiliaries, . . . . .	25
United States transports, . . . . .	16
United States revenue cutter steamers, . . . . .	14
United States coast survey steamers, . . . . .	8
United States lighthouse steamers, . . . . .	10
At sea, . . . . .	438

MEMBERSHIP OF THE SCHOOL, GRADUATES FOR 1906, 1907  
AND 1908.

Spring Graduating Class, April 16, 1906.

Booth, F. A.,	.	.	.	.	.	.	.	New Bedford.
Butler, L. B.,	.	.	.	.	.	.	.	Worcester.
Caldwell, A. C.,	.	.	.	.	.	.	.	Dorchester.
Copeland, H. G.,	.	.	.	.	.	.	.	Malden.
Cushman, C. E., Jr.,	.	.	.	.	.	.	.	Rockport.
Dolan, W. R.,	.	.	.	.	.	.	.	Worcester.
Flannigan, E. J.,	.	.	.	.	.	.	.	Wakefield.
Graves, Herbert,	.	.	.	.	.	.	.	Wilmington.
Hanes, C. W.,	.	.	.	.	.	.	.	Melrose.
Holbrook, C. A.,	.	.	.	.	.	.	.	Marlborough.
Houghton, L. H.,	.	.	.	.	.	.	.	Worcester.
Howard, A. M.,	.	.	.	.	.	.	.	Chelmsford.
MacDonald, W. R.,	.	.	.	.	.	.	.	Neponset.
McDonald, C. B.,	.	.	.	.	.	.	.	Springfield.
McKey, R. H.,	.	.	.	.	.	.	.	Dorchester.
Morgan, C. L.,	.	.	.	.	.	.	.	Beverly.
Peckham, H. I.,	.	.	.	.	.	.	.	Marlborough.
Roach, H. C.,	.	.	.	.	.	.	.	New Bedford.
Ruyter, John,	.	.	.	.	.	.	.	Stoughton.
Sheedy, J. C.,	.	.	.	.	.	.	.	Malden.
Towle, W. F.,	.	.	.	.	.	.	.	Mansfield.

*Fall Graduating Class, Sept. 29, 1906.*

Batchelder, L. K.,	.	.	.	.	.	.	Melrose.
Bates, P. S.,	.	.	.	.	.	.	Southville.
Bosson, G. C.,	.	.	.	.	.	.	Reading.
Brown, W. H.,	.	.	.	.	.	.	Boston.
Burbank, A. G.,	.	.	.	.	.	.	Carver.
Colony, C. E.,	.	.	.	.	.	.	Brookline.
Doherty, M. J.,	.	.	.	.	.	.	Winthrop.
Foster, V. M.,	.	.	.	.	.	.	East Boston.
Gladding, B. N. A.,	.	.	.	.	.	.	New Bedford.
Jones, L. A.,	.	.	.	.	.	.	Middleborough.
Lee, W. H.,	.	.	.	.	.	.	Roxbury.
Nutting, C. E.,	.	.	.	.	.	.	Cambridge.
Webster, W. R.,	.	.	.	.	.	.	Worcester.
Wilmarth, F. C.,	.	.	.	.	.	.	Saundersville.

*Class to graduate April, 1907.*

[illegible]

Early, R. V.,	Newton Lower Falls.
Garity, Herbert,	Charlestown.
La Montague, L. L.,	Miller's Falls.
Lewis, D. C. C.,	New Bedford.
McDonald, C. S.,	Malden.
Merriam, P. W.,	Greenfield.
Parker, G. L.,	Reading.
Perley, A. E.,	Wakefield.
Saville, L. B.,	Lexington.
Sherman, G. S.,	Jamaica Plain.
Small, E. B.,	North Truro.
Smith, P. R.,	Concord.
Smith, W. L.,	Ashburnham.
Stickney, G. H.,	Worcester.
Walker, L. A.,	Whitman.
Wier, J. R.,	Saundersville.
Wilder, H. P.,	Marlborough.

*Class to graduate October, 1907.*

Biathrow, C. A.,	Malden.
Bragg, A. E.,	Woods Hole.
Damon, P. L.,	West Hanover.
Gifford, W. M.,	Woods Hole.
Green, H. D.,	Duxbury.
Hartwell, C. E.,	Worcester.
King, C. F.,	North Adams.
Marcy, P. B.,	Boston.
McMillan, W. E. R.,	Pittsfield.
Osgood, S. P.,	Middleborough.
Reilly, J. J.,	Dorchester.
Sears, F. L.,	East Dennis.
Simonds, C. W.,	Charlestown.
Ware, S. H.,	Peabody.
West, R. C.,	Wakefield.

*Class to graduate April, 1908.*

Bassett, H. W.,	East Milton.
Beaudry, G. B.,	Reading.
Burns, K. B.,	Plymouth.
Cameron, G. H.,	Wakefield.
Campbell, H. E.,	Quincy.
Daniels, C. B.,	Franklin.
Gainard, F. A.,	Chelsea.
Gunn, H. N.,	Lynn.
Hird, G. W.,	Wakefield.
Hutchinson, Robert,	Whitman.
Jones, N. S.,	Gloucester.
Killen, G. J.,	Lawrence.



Lambert, J. F. M.,	.	.	.	.	.	.	Chelsea.
Larner, Harold,	.	.	.	.	.	.	Cambridgeport.
Maglathlin, C. W.,	.	.	.	.	.	.	West Bridgewater.
Manter, Harry,	.	.	.	.	.	.	Nantucket.
McWilliams, Joseph,	.	.	.	.	.	.	Boston.
Nichols, F. K.,	.	.	.	.	.	.	Ashburnham.
Palmer, H. B.,	.	.	.	.	.	.	Fall River.
Pellett, T. B.,	.	.	.	.	.	.	Worcester.
Persson, E. O. W.,	.	.	.	.	.	.	West Lynn.
Shevlin, E. P.,	.	.	.	.	.	.	East Boston.
Smith, A. W.,	.	.	.	.	.	.	Dorchester.
Smith, C. A.,	.	.	.	.	.	.	East Boston.
Stone, Oren M.,	.	.	.	.	.	.	Roxbury.

*Class to graduate October, 1908.*

Cone, H. P.,	.	.	.	.	.	.	Worcester.
Curtis, M. K.,	.	.	.	.	.	.	Athol.
Downs, J. W.,	.	.	.	.	.	.	Orleans.
Ells, E. S.,	.	.	.	.	.	.	Cambridge.
Farquhar, F. W.,	.	.	.	.	.	.	Lawrence.
Lindman, C. W.,	.	.	.	.	.	.	Hyde Park.
Mellen, C. B.,	.	.	.	.	.	.	Quincy.
Murphy, T. H.,	.	.	.	.	.	.	West Hanover.
Robinson, E. F.,	.	.	.	.	.	.	East Boston.
Sargent, H. K.,	.	.	.	.	.	.	Newburyport.
Teschner, E. P.,	.	.	.	.	.	.	Lawrence.
Walker, A. R.,	.	.	.	.	.	.	Whitman.

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1906.*

Number in the school Jan. 1, 1906:—			
Seamanship class, . . . . .		16	
Engineer class, . . . . .		21	
Nautical cadets, . . . . .		58	
Total, . . . . .			95
Applications received, 1906, . . . . .			66
Failed to appear for examination, . . . . .	4		
Unsatisfactory recommendations, . . . . .	2		
Awaiting examination, . . . . .	1		
Applicants examined, . . . . .	59		
Examined, . . . . .			59
Failed to pass mental examination, . . . . .	6		
Failed to pass physical examination, . . . . .	5		
Failed to pass mental and physical examinations, . . . . .	3		
Passed examinations, . . . . .	45		
Passed examinations, . . . . .	45		
Re-examined mentally and passed, . . . . .	4		
Re-examined physically and passed, . . . . .	1		
Readmitted, . . . . .	3		
	53		
Failed to qualify after passing examinations, . . . . .	3		
	50		
Total number admitted to school during 1906, . . . . .			50
Total number connected with the school during 1906, . . . . .			145

*Cadets withdrawn during the Year 1906.*

Total number regularly graduated, . . . . .			35
Seamanship class, . . . . .	16		
Engineer class, . . . . .	19		
Total number honorably discharged, . . . . .			18
Seamanship class, . . . . .	5		
Engineer class, . . . . .	5		
Nautical cadets, . . . . .	8		
Total number graduated and honorably discharged, . . . . .			53
Dropped from roll, . . . . .	2		
Dismissed, . . . . .	8		
Withdrawn, . . . . .	9		
Total number dropped, etc., . . . . .			19
Total withdrawals during 1906, . . . . .			72
Number of cadets in the school Jan. 1, 1907, . . . . .			73
Seamanship class, . . . . .	15		
Engineer class, . . . . .	21		
Nautical cadets, . . . . .	37		

## BILL OF FARE.

Following is the bill of fare as arranged for the cadets : —

(Cocoa or coffee every morning, after hammocks are stowed, only at sea.)

## MONDAY.

*Breakfast.* — Beefsteak, stew or eggs, bread and butter, coffee.

*Dinner.* — Soup, roast beef, potatoes, tomatoes, bread, pudding.

*Supper.* — Cold meat, cheese or apple sauce, bread and butter, tea.

## TUESDAY.

*Breakfast.* — Oatmeal, fish hash or pork chops, bread and butter, coffee.

*Dinner.* — Roast mutton, potatoes, bread or rice pudding, coffee.

*Supper.* — Cold meat, cakes, prunes, bread and butter, molasses or syrup, tea.

## WEDNESDAY.

*Breakfast.* — Baked beans, pickles or catsup, bread and butter, coffee.

*Dinner.* — Boiled beef, potatoes, turnips, cooked green vegetables or salads, bread and butter, fruit, coffee.

*Supper.* — Corned beef, apple sauce, bread and butter, tea.

## THURSDAY.

*Breakfast.* — Beefsteak, potatoes, bread and butter, coffee.

*Dinner.* — Beef stew, potatoes, bread, boiled pudding, coffee.

*Supper.* — Cold meat, cakes, prunes, bread and butter, molasses or syrup, tea.

## FRIDAY.

*Breakfast.* — Oatmeal and milk, liver or eggs or fish hash, bread and butter, coffee.

*Dinner.* — Fish or clam chowder, pickles, potatoes, bread or rice pudding, bread, coffee.

*Supper.* — Cold meat, stewed apples or cheese, bread and butter, tea.

## SATURDAY.

*Breakfast.* — Beef hash, bread and butter, coffee.

*Dinner.* — Boiled ham or shoulder, potatoes, cabbage, fruit, bread, coffee.

*Supper.* — Corned beef, apple sauce, bread and butter, tea.

## SUNDAY.

*Breakfast.* — Pork and beans, bread and butter, coffee.

*Dinner.* — Pea soup, fowl, potatoes, cooked green vegetables or salads, pie or fruit, bread, coffee.

*Supper.* — Cakes, bread and butter, stewed prunes, tea.

Salads are to be made of suitable vegetables. Canned vegetables and canned meats, of every description, to be used *only when*, owing to the season of the year or other causes, the fresh vegetables and fresh and salted meats cannot be obtained.

The quantities in the above diet table are unrestricted; each cadet to have all he wishes to eat.

The equivalent in meats may be substituted in this dietary if found necessary.

The sea fare is to be adapted to this dietary as far as practicable.

CODE OF DISCIPLINE FOR USE ON BOARD THE MASSACHUSETTS TRAINING SHIP "ENTERPRISE."

The Board of Commissioners of the Massachusetts Nautical Training School have adopted the following code for the guidance of the commander of the United States steamer "Enterprise" in maintaining proper discipline in this school, and he is hereby empowered to inflict such punishments as are here set forth, keeping a record of the same in a proper book for the inspection of the commission. He shall also make a report in writing to the Board of all punishments inflicted by him, or by his order, at the end of every month.

The offences for which punishment should be inflicted are hereby classified as follows : —

*A.* — Theft, drunkenness, leaving ship without permission, refusing to obey the order of an officer or a cadet officer, or leaving the lookout while on watch.

The penalty for these offences, if proved, may be summary dismissal from the school.

For the investigation and determination of all offences of such a character charged against a cadet, a board shall be appointed by the superintendent; and the investigation shall be conducted under forms of procedure similar, as may be, to courts of inquiry in the navy of the United States. The result of such investigation, determination and action shall be forwarded to the Board of Commissioners, with such remarks of approval or disapproval endorsed thereon as the superintendent may deem fit to make. No recommendation for the dismissal of a cadet shall be carried into effect until it has received the approval of the Board of Commissioners.

*B.* — Inattention to studies or at drill, failure to send in note or sight books, lying, prevarication, persistent neglect of regulations, or leaving the deck while on watch.

The extreme penalty for these offences shall be confinement in the brig on bread and water, not to exceed three days, at the discretion of the superintendent; but the superintendent is enjoined to use careful judgment in ordering such punishment.

*C.* — Lesser offences.

These are to be punished at the discretion of the superintendent by extra duties.

For offences *B* and *C*, deprivation of leave may be ordered, not to exceed ten days at any one time; and for bad conduct during the week the offender shall be denied the usual Sunday leave.



*Employment of Graduates and Cadets honorably discharged from 1893 to 1906, inclusive.*

	GRADUATES' EMPLOYMENT.						EMPLOYMENT OF CADETS WITHDRAWN.					
	AT SEA.		ON SHORE.		UNKNOWN.		AT SEA.		ON SHORE.		UNKNOWN.	
	Seaman-ship Class.	Engl-neer Class.	Seaman-ship Class.	Engl-neer Class.	Seaman-ship Class.	Engl-neer Class.	Seaman-ship Class.	Engl-neer Class.	Seaman-ship Class.	Engl-neer Class.	Nautical Cadets.	Totals.
1893,	-	-	-	-	-	9	8	-	5	-	29	29
1894,	-	-	-	-	-	1	1	3	3	-	12	48
1895,	16	15	3	4	-	5	3	3	3	-	5	12
1896,	18	14	2	3	-	2	3	3	2	-	9	31
1897,	18	15	1	5	1	2	2	1	1	-	5	20
1898,	12	21	3	3	-	3	1	3	3	-	6	26
1899,	7	9	2	2	2	4	3	2	2	-	18	41
1900,	13	21	1	10	-	2	1	1	-	-	7	21
1901,	7	9	1	5	3	3	3	3	-	-	5	20
1902,	14	15	1	3	1	2	5	1	2	-	12	34
1903,	12	8	4	4	1	5	1	4	2	-	7	25
1904,	12	12	1	5	3	-	5	2	3	-	2	17
1905,	3	5	4	4	3	-	1	1	-	-	2	9
1906,	10	10	5	10	-	-	-	-	-	-	2	18
Totals,	142	154	28	58	14	31	36	34	20	22	121	346

NOTE. — The explanation of the difference between "438 cadets at sea," on page 17, and total number of graduates and cadets "honorably discharged at sea," given on page 25 as 366, is represented by 72 cadets dropped or withdrawn from the school without an honorable discharge in thirteen years.

## APPROPRIATIONS.

The appropriations for the school for the fiscal year 1906, which was for eleven months from Jan. 1, 1906, to Nov. 30, 1906, are here accounted for as follows:—

*Current Expenses.*

Appropriation, . . . . .	\$50,416 66
Expended:—	
Pay roll, . . . . .	\$24,563 32
Provisions, . . . . .	12,758 92
Text-books, instruments, etc., . . . . .	496 95
Seamanship department, . . . . .	3,262 07
Engineer department, . . . . .	5,749 64
Repairs, . . . . .	1,988 51
Miscellaneous, . . . . .	1,543 32
	<hr/>
Total amount expended, . . . . .	50,362 73
	<hr/>
Balance unexpended, . . . . .	\$53 93

*Office Expenses.*

Appropriation, . . . . .	\$4,583 33
Expended:—	
Salaries, . . . . .	\$3,214 33
Books, stationery and postage, . . . . .	487 11
Commissioners' expenses, . . . . .	322 35
Miscellaneous, . . . . .	511 42
	<hr/>
Total amount expended, . . . . .	4,535 21
	<hr/>
Balance unexpended, . . . . .	\$48 12

Respectfully submitted,

GEORGE F. F. WILDE, *Chairman,*

REAR ADMIRAL, U. S. N. (Retired),

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

F. STANHOPE HILL, LATE U. S. N., *Secretary.*

## LEGAL AUTHORITY FOR THE SCHOOL.

### AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

#### AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

### AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402, ACTS OF 1891.]

#### AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of

this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECTION 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United

States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECTION 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [*Approved June 11, 1891.*]

## VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on military affairs, to whom was referred the matter of the approval of the United States ship "Enterprise" for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby —

*Ordered*, That the United States ship "Enterprise" be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk.*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### ESTABLISHMENT.

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.



## RECENT LEGISLATION.

[CHAPTER 171, ACTS OF 1903.]

AN ACT RELATIVE TO THE AMOUNT WHICH MAY ANNUALLY BE EXPENDED  
FOR THE MAINTENANCE OF THE MASSACHUSETTS NAUTICAL TRAIN-  
ING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words "not more than fifty thousand dollars," in the first and second lines, and inserting in place thereof the words: — such sum as the general court may from year to year appropriate, — so as to read as follows: — *Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

SECTION 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*]





SIXTEENTH ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1908.



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COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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GEORGE F. F. WILDE, *Chairman*,  
REAR ADMIRAL, U. S. N. (RETIRED).  
ROBERT B. DIXON, M.D.  
HON. JOHN READ, LATE U. S. N.

---

F. STANHOPE HILL, *Secretary*,  
LATE U. S. N.



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the  
Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1907.

### THE WORK OF THE YEAR.

During the past year the work of the Nautical Training School has been satisfactorily carried on, with an average of 74 cadets on the roster from Dec. 1, 1906, to Nov. 30, 1907. There have been 132 cadets in all connected with the school during the year. Nineteen cadets were graduated in April, — 11 in the engineer class and 8 in the seamanship class; and in October the graduating class numbered 6, — 2 in the seamanship class and 4 in the engineer class; making a total for the year of 25 graduates, — 13 engineers and 12 seamen.

### THE SUMMER CRUISE.

The industrial strike in Boston last spring preventing the Atlantic Works from finishing, within the contract time, the work of repairing the engines and boilers of the "Enterprise," it was found necessary, after numerous delays, to obtain permission from the Navy Department to send the ship to the Navy Yard, Charlestown.

The work was not completed there until early in June, and the "Enterprise" sailed for Marblehead on June 18, returning to Boston on June 26. On June 27 the ship was inspected by



His Excellency the Governor and Council, accompanied by the commissioners, when the "Enterprise" went down the bay and the cadets were exercised in various evolutions.

Sailing from Boston on June 29, the ship touched at Provincetown, and arrived at New London, Conn., July 4, 1907.

While at New London some trouble occurred with a portion of the cadets, by whom complaints were made as to the quality of their food and the shore liberty allowed. This being reported to the commissioners, the "Enterprise" was at once ordered to return to Boston, and the Governor was requested by the commissioners to order a board of inquiry into the matters at issue. After very careful investigation, the Board found the charges were without substantial foundation, and the ship was ordered to make her usual foreign cruise, which embraced Gibraltar and Madeira.

The accompanying abstract from the report of the superintendent, Commander William F. Low, U. S. N., will give an idea of the work of the cadets during that period.

*Itinerary.*

Left.	Date.	Arrived.	Date.
Boston, . . . . .	June 18	Marblehead, . . . . .	June 18
Marblehead, . . . . .	June 26	Boston, . . . . .	June 26
Boston, . . . . .	June 29	Provincetown, . . . . .	June 29
Provincetown, . . . . .	July 1	New London, . . . . .	July 4
New London, . . . . .	July 7	Boston, . . . . .	July 9
Boston, . . . . .	July 25	Gibraltar, . . . . .	Aug. 19
Gibraltar, . . . . .	Aug. 24	Funchal, Maderia, . . . . .	Aug. 29
Funchal, Maderia, . . . . .	Sept. 3	Bermuda, . . . . .	Oct. 5
Bermuda, . . . . .	Oct. 7	Boston, . . . . .	Oct. 12 <sup>1</sup>

<sup>1</sup> Arrived off Boston Light October 11.

The trip home was most disappointing; long periods of calms and light trade winds, with great heat, broken at last by a moderate gale, some 200 miles northeast of Bermuda.

After lying to for three days, I concluded it would be wise to run down to Bermuda for some overhauling of the engine and for coal, which I accordingly did, arriving there October 5. We left Bermuda October 7, and reached Boston October 11, hauling into winter quarters the next day.

From the time the "Enterprise" sailed for Gibraltar to the termination of the cruise no complaint had been received from parent or student in regard to the food or conditions. The steward, responsible for such temporary and limited disorganization of the bill of fare as did take place, was dismissed before leaving Boston.

All possible grounds for complaint over even the temporary conditions that usually prevail in starting on a new voyage were removed, as indeed they would have been without an investigation. I am gratified to learn, moreover, that no protest in regard to the case of the mutineers dismissed from the ship has been received from parent or guardian.

#### INSTRUCTION.

During the cruise the cadets were instructed as follows in seamanship, signals, navigation and engineering:—

##### *Seamanship.*

Setting up rigging; reeving off gear; bending sail; sail making; steering; heaving lead and log; under oars; duties as coxswains of boats; captains of tops; quartermasters and officers of the deck; bracing; making and taking in sail; running lines; handling yards; shifting and reefing sail; heaving to under storm sail; lookouts; securing boats for sea; wearing ship; knotting and splicing; unbending sail; reefing courses and topsails; stations for evolutions under sail; care and cleaning of bilges; ground tackle; sending up and down yards and spars; standing rigging; securing yards and sails in heavy weather; sea anchor; use of oil.

##### *Signals.*

International code, including the following: procedure when signalling passing vessels; urgent and important signals; signals of distress; distant signals and the general vocabulary; Army and Navy wig-wag code.

##### *Navigation.*

(a) The work, with the exception of the junior cadets, was mostly practical.

(b) The junior cadets were instructed in the elements of dead reckoning and the boxing of the compass.

(c) The senior cadets were given practical work in the following subjects: dead reckoning, course and distance by middle latitude and Mercator's sailing; taking departure; setting courses; plotting positions; latitude and longitude by observation; Sumner lines; azimuths, comparing chronometers; use of charts; sailing directions; tide tables; light lists; use and adjustment of instruments.

(d) While at sea, cadets having the afternoon watch below were mustered at studies from 1.30 to 3.30 daily, except Saturdays and Sundays.

(e) The senior cadets having the afternoon watch below were required to turn in the following work: noon position by dead reckoning and observation, course and distance made good since preceding noon; set and drift of current during preceding day, the compass error and deviation on at least one heading, and such other problems as were assigned. All sights were taken individually, and every effort was made to have each cadet work independently.

(f) The progress and results were very satisfactory.

### *Engineering.*

(a) *First Part.*—Steam and water piping; firing; the care and repair of pumps; care of engines; oiling; packing of joints; adjusting valves; care of evaporators; general duties required in the engine room.

(b) *Second Part.*—Firing; water tending; running electric light engine and dynamo; care of pumps and their repair; distilling; care of evaporators and general fire-room duties.

(c) *Junior Cadets.*—Coal passing; firing; cleaning boilers; instruction in the lead and use of pipes, check and other valves, and the names and uses of boiler attachments.

Coal consumed on cruise, 475 tons, 2,150 pounds.

### MEDICAL DEPARTMENT.

The health of the cadets was, on the whole, good. There were no serious accidents. Shortly after leaving Madeira about thirty cases of diarrhœa developed, all of which quickly yielded to treatment. These were caused probably by dietary indiscretions while on shore leave at Madeira.

The water, examined daily, was excellent, showing only the proper amount of salt.

When the ship reached Madeira it was ascertained that an epidemic of smallpox had existed on the island for the past three months, and that, while it was well under control, there were sporadic cases. Vaccine was secured and cadets and crew were inoculated.

It may be stated that every cadet returned from the cruise in excellent condition, with firm, hard muscles and a good color, many of them showing surprising gains in weight and general condition.

A course of instruction in first aid to the injured was given, including how to act in presence of emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat, unconsciousness, fainting, shock, compression, sunstroke, drunkenness, convulsions, smothering by gas, drowning, poisons, dog, snake and insect bites, and poison ivy; making of surgical dressings and poultices.

## COMMISSARY REPORT.

Stores purchased in Boston, . . . . .	\$3,798 59
Stores purchased on cruise, . . . . .	1,308 61

Total cost of stores, . . . . .	\$5,107 20
Stores condemned by survey, . . . . .	\$49 14
Ice, . . . . .	40 13
Equipment stores on commissary bills, . . . . .	17 52
Stores expended, Governor's inspection, . . . . .	8 50
Stores remaining on hand on arrival in Boston, . . . . .	685 59
	<hr/> 800 88

Cost of stores used, . . . . .	\$4,306 32
Number of rations issued, . . . . .	11,520
Cost per ration, . . . . .	\$0.373

*Classified Expenditures on the Cruise.*

Pay roll, . . . . .	\$5,718 37
Commuted rations, . . . . .	411 00
Commissary, . . . . .	1,308 61
Coal and water, . . . . .	2,062 23
Equipment department, . . . . .	223 04
Engineering department, . . . . .	65 95
Ashes and garbage, . . . . .	29 20
Contingent, . . . . .	148 18

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\$9,966 58

Coal on hand, arrival in Boston, . . . . .	\$488 22
Commissary stores on hand, . . . . .	685 59
Stores condemned, . . . . .	49 14
	<hr/> 1,222 95

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\$8,743 63

## THE WINTER TERM.

By the continued courtesy of the bath commissioners of the city of Boston, the "Enterprise" is moored for the winter at the wharf of the North End Park, Boston, free of expense to the Commonwealth. As usual, the ship has been housed over and steam heating installed, thus affording comfortable quarters for study and for instructing the cadets during the winter term.



## VISITING THE "ENTERPRISE."

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would be gratified to have them visit the "Enterprise" at the North End Park on any day excepting Saturday and Sunday, when the cadets are absent on home leave.

## PERSONNEL.

The changes in commissioners, officers and instructors during the year have been as follows:—

July 1, 1907, Hon. John Read of Cambridge was reappointed a commissioner for a term of three years.

April 8, 1907, Mr. Webb C. Maglathlin of West Bridgewater resigned his position as chief engineer of the "Enterprise," having been appointed a second assistant engineer in the United States revenue cutter service.

April 9, 1907, Mr. E. J. Scanlon, a graduate of this school, was appointed chief engineer of the "Enterprise."

June 15, 1907, Chief Boatswain Harry R. Brayton, U. S. N., was appointed executive officer, vice Ensign C. Churchill, U. S. N., resigned June 14, 1907.

Nov. 9, 1907, Warrant Machinist John O'Neill, U. S. N., retired, was appointed chief engineer of the "Enterprise."

Nov. 25, 1907, John McGrath, chief boatswain, U. S. N., retired, was appointed watch officer of the "Enterprise."

## INFORMATION REGARDING GRADUATES OF THE SCHOOL.

The great value of the technical instruction given in the Nautical Training School can best be determined by a study of the work of its graduates. During its brief existence about 1,100 young men have availed themselves of the educational privileges afforded by the State in this school. A large proportion of these young men are now holding responsible positions on board vessels in every branch of the marine service. Although the first class was graduated as recently as 1895, many graduates have already reached the highest places in their profession, as captains and chief engineers. Every class has



contributed men who are holding important positions as deck and engineer officers. The many opportunities for employment at sea make the temptation very strong on the part of the cadets to leave before completing the full term, yet 452 have finished the two years' term and received diplomas. Seventy-four per cent. of the graduates have had sea service. As the demand in the merchant marine for competent, well-trained men is greater than the supply, graduates have little difficulty in securing immediate employment.

In June last a graduate was appointed executive officer of the U. S. S. "Newport," loaned to the State of Massachusetts for the summer practice cruise of the Naval Brigade. He was ordered to Portsmouth, N. H., with 75 men from the naval militia and a detail of men from U. S. R. S. "Wabash" to bring the "Newport" to Boston.

Among the graduates who are already holding responsible positions at sea are Mr. George E. Eaton of Wakefield, captain of the U. S. lighthouse tender "Azalea," who has distinguished himself by furnishing opportune aid to vessels in the vicinity of Nantucket Sound and Cape Cod. Mr. Forrest D. Clark of Dorchester, chief engineer of the S. S. "H. M. Whitney," the youngest chief engineer in the service of the Metropolitan line. Mr. Frederick A. Sparks of Provincetown, master of the fine steam yacht "Machigonne," owned by an ex-governor of Massachusetts. Mr. Hollis M. Cornwall of Melrose, who in less than six years, and at the age of twenty-seven years, has become chief engineer of one of the largest and finest coastwise steamers, the S. S. "Persian." Mr. Webb C. Maglathlin, who served for six months as chief engineer of the nautical training ship "Enterprise," and who passed number one in the examination for appointment to the United States revenue cutter service, the examination lasting four days. Mr. Joseph W. McGrath of Quincy, who lost his life at sea while in command of the S. S. "Discovery," on the voyage from Alaska to Seattle. Mr. George F. Waite of Winthrop, first officer of S. S. "Ocmulgee," Brunswick Steamship Company. Mr. Emery Rice of Brighton, first officer of the large Pacific liner "Tremont." Mr. Joseph E. Sheedy of Reading, who passed number one out of 73 who took the examination for entrance to the United States revenue cutter

service as an engineer officer. Mr. A. Russell Cushing of Dorchester, navigating officer and instructor, Massachusetts Nautical Training School. Mr. James H. B. Meehan of Lowell, who, as chief engineer of the naval auxiliary "Nero," towed the giant dry dock "Dewey" from Sparrows Point, Md., to Manila, Philippine Islands. Mr. Leander A. Clapp of Brockton, first officer of the naval auxiliary "Ajax," one of the largest of the navy colliers, graduated in April, 1903. Mr. Franklin B. Harwood of Rockport, second lieutenant, United States revenue cutter service.

The following have entered the United States revenue cutter service as assistant engineers: Lorenzo C. Farwell, Dorchester, first assistant engineer, now attached to the practice ship "Itasca;" Joseph E. Sheedy, Reading, Albert F. Patterson, Townsend, John T. Carr, Malden, and Webb C. Maglathlin, West Bridgewater, second assistant engineers.

The commissioners are pleased to report that Thomas Baxter of South Dennis, senior cadet officer in his class, has been given an appointment as midshipman, United States Naval Academy, Annapolis.

In order to answer in a measure many inquiries regarding the present employment of graduates of the school, the following list is given:—

First officer, S. S. "Nebraskan," American-Hawaiian Steamship Company; third officer, naval auxiliary "Nero;" first assistant engineer, S. S. "Olivette;" third assistant engineer, S. S. "Seneca," New York & Porto Rico Steamship Company; first officer, S. S. "Colon," Panama Steamship Company; first assistant engineer, naval auxiliary "Ajax;" first officer, S. S. "Tremont," Boston Steamship Company; third officer, naval auxiliary "Abarenda;" second assistant engineer, naval auxiliary "Marcellus;" second assistant engineer, Standard Oil Company ship "Maverick;" first assistant boat keeper, Boston pilot boat "America, No. 1;" first officer, Panama Steamship Company; electrician, United States Navy; electrician, U. S. naval auxiliary "Cæsar;" third officer, naval auxiliary "Sterling;" quartermaster, U. S. lighthouse steamer; oiler, steamer "Providence," New England Navigation Company; quartermaster, S. S. "City of Augusta," Savannah line; electrician,

steamer "Pilgrim," New England Navigation Company; electrician, U. S. S. "Tacoma;" oiler, towboat "Scranton," Lackawanna Railroad Company; electrician, U. S. S. "Cleveland;" quartermaster, naval auxiliary "Abarenda;" oiler, S. S. "Katahdin," Clyde line; quartermaster, steam yacht "Athenia;" engineer cadet, American line.

The Massachusetts Nautical Training School, like the Agricultural College, deserves the cordial recognition of the Legislature and the people of the Commonwealth, and should receive their moral as well as their liberal financial support.

Harvard University and the Massachusetts Institute of Technology furnish an excellent liberal education for the sons of the wealthier classes who expect to enter professional life, but the two institutions mentioned above do far more than this for the sons of the middle and poorer classes of our community. The practical knowledge gained in this school enables its graduates, at the end of a two years' course, to obtain immediate employment, at wages starting from \$40 per month and their board and lodging, and steadily increasing to \$70 and \$140 per month and found. In many instances these young men have places offered them before completing the full term, and practically all the graduates are placed within a month or two after graduation.

In the terrible wreck of the S. S. "Larchmont," off Watch Hill, last winter, the country was awakened to a startling realization of the shocking catastrophies that may follow in the employment of incompetent and poorly trained officers. It is highly important for the safety of American ships and passengers that their officers should have the highest training and education possible. The lesson to be learned from that tragedy of the sea is that American officers must be trained to perform their duty at all times in the most thorough and conscientious manner.

The United States Commissioner of Navigation, in his report for the year 1906, says: —

Up to the present time competent authorities are virtually agreed that training on a square-rigged ship is an essential qualification for service as deck officer on a steamer. Our own navy follows that theory, some of the leading foreign steamship lines carry it out by maintaining

square-rigged ships as schools for the future officers of their steamships, and generally, both at home and abroad, the deck officers of steamships have been educated on square-rigged vessels. In a short time the theory that such training is necessary must be abandoned, or the Federal government must either itself maintain or contribute to the maintenance of square-rigged ships as training schools, as it has contributed to the support of agricultural colleges. The training ships "Enterprise" at Boston, "St. Mary's" at New York, and "Saratoga" at Philadelphia serve admirably useful purposes, and if the seaboard States would avail themselves more generally of the act of June 20, 1874, the situation might be met.

The Board of Education of the city of New York, which has maintained the training ship "St. Mary's" for thirty-three years, has just secured the U. S. S. "Newport" to replace the "St. Mary's," enabling that school to add marine and electrical engineering to its curriculum, as is done in the Massachusetts school. The New York school asks this year for an appropriation of \$70,000.

The U. S. S. "Adams," that it is understood is to be assigned to the State of Pennsylvania as a schoolship, in place of the U. S. S. "Saratoga," condemned, is of the same class as the "Enterprise," 1,400 tons, built in 1874.

The cities of Cleveland and Seattle are taking steps toward the establishment of nautical training schools on the lakes and the northwest coast, and have applied to the United States government for ships for that purpose.

The Belgium training ship, the "Conte de Smet de Naeyer," having been lost at sea last year, the trustees of the school have just secured the four-masted ship, with auxiliary steam power, "R. C. Rickmers," of 5,548 tons, the largest sailing ship in the world, and a class of 24 boys has been sent out to join the vessel at San Pedro, Cal.

Like the maritime nations of Europe, the Japanese government, in taking measures to supply her merchant marine with trained and educated seamen, is building a nautical training ship, — the "Taisei Maru," — a four-masted steel sailing ship, with auxiliary steam power, designed especially for the purpose of fitting young men for the sea.



## MEMBERSHIP OF THE SCHOOL.

*Spring Graduating Class, April 5, 1907.*

Baxter, Thomas,	South Dennis.
Chaney, Eugene E.,	Arlington.
Chick, Harry L.,	Beverly.
Coughlan, Fred'k M.,	North Dartmouth.
Early, Roy V.,	Newton.
Garity, Herbert,	Charlestown.
La Montagne, Louis L.,	Millers Falls.
Lewis, Don Carlos C.,	New Bedford.
McDonald, Charles S.,	Malden.
Merriam, Philip W.,	Greenfield.
Parker, George L.,	Reading.
Perley, Albert E.,	Wakefield.
Sherman, Grant S.,	Jamaica Plain.
Small, Elmer B.,	North Truro.
Smith, Paul R.,	Concord.
Smith, Walter L.,	Ashburnham.
Stickney, George H.,	Worcester.
Wier, Joseph R.,	Saundersville.
Wilder, Herbert P.,	Marlborough.

*Fall Graduating Class, Oct. 12, 1907.*

Bragg, Archie E.,	Woods Hole.
Gifford, William M.,	Woods Hole.
Hartwell, Charles E.,	Worcester.
Marcy, Philip B.,	Boston.
Sears, Frazier L.,	East Dennis.
Simonds, Calvin W.,	Charlestown.

*Class to graduate April, 1908.*

Bassett, Harold W.,	East Milton.
Burns, Kenneth B.,	Plymouth.
Cameron, George H.,	Wakefield.
Killen, George J.,	Lawrence.
Larner, Harold,	Cambridgeport.
McWilliams, Joseph,	Boston.
Pellett, Thomas B.,	Worcester.
Persson, Eric O. W.,	West Lynn.
Shevlin, Eugene P.,	East Boston.
Smith, Charles A.,	East Boston.



*Class to graduate October, 1908.*

Curtis, Miles K.,	.	.	.	.	.	.	Athol.
Downs, John W.,	.	.	.	.	.	.	Orleans.
Ells, Jr., Edward S.,	.	.	.	.	.	.	Cambridge.
Farquhar, Frederick W.,	.	.	.	.	.	.	Lawrence.
Lindman, Carl W.,	.	.	.	.	.	.	Hyde Park.
Mellen, Chester B.,	.	.	.	.	.	.	Quincy.
Robinson, Ernest F.,	.	.	.	.	.	.	East Boston.
Walker, Arthur R.,	.	.	.	.	.	.	Whitman.
Whiton, Arthur E.,	.	.	.	.	.	.	Greenwood.

*Class to graduate April, 1909.*

Bear, John R.,	.	.	.	.	.	.	Winthrop.
Besse, Ronald J.,	.	.	.	.	.	.	South Hanson.
Cooper, Harold C.,	.	.	.	.	.	.	Malden.
Conelly, John J.,	.	.	.	.	.	.	Stony Brook.
Fowler, Allan S.,	.	.	.	.	.	.	New Bedford.
Gildersleeve, Joseph S. W.,	.	.	.	.	.	.	Roxbury.
Grimshaw, Seabrook P.,	.	.	.	.	.	.	New Bedford.
Hammond, Herbert W.,	.	.	.	.	.	.	Malden.
Hart, Leslie S.,	.	.	.	.	.	.	Lynn.
Henry, Richard K.,	.	.	.	.	.	.	Pittsfield.
Jones, Louis F.,	.	.	.	.	.	.	Brookton.
Judson, Walter O.,	.	.	.	.	.	.	Marlborough.
Kelley, Ervin L.,	.	.	.	.	.	.	Roxbury.
Mitchell, Everett L.,	.	.	.	.	.	.	Haverhill.
Morse, Arthur A.,	.	.	.	.	.	.	Lynn.
Norton, Nicholas E.,	.	.	.	.	.	.	Edgartown.
O'Keeffe, John D.,	.	.	.	.	.	.	North Easton.
Perry, Edgar A.,	.	.	.	.	.	.	Boston.
Rondelle, Louis G.,	.	.	.	.	.	.	Boston.
Ross, Harold E.,	.	.	.	.	.	.	Amesbury.
Sillars, William A.,	.	.	.	.	.	.	Danvers.
Sylvia, Frederick H. H.,	.	.	.	.	.	.	Nantucket.
Ward, Everett B.,	.	.	.	.	.	.	Lynn.
Wilson, Leland S.,	.	.	.	.	.	.	Beverly.
Winquist, Eric E.,	.	.	.	.	.	.	Jamaica Plain.

*Class to graduate October, 1909.*

Caddigan, William E.,	.	.	.	.	.	.	Allston.
Collins, George H.,	.	.	.	.	.	.	Needham.
Gill, Maurice D.,	.	.	.	.	.	.	North Eastham.
Hamilton, Woodbury R.,	.	.	.	.	.	.	Dorchester.
Higgins, Carroll E.,	.	.	.	.	.	.	Orleans.
Hines, Robert F.,	.	.	.	.	.	.	East Boston.
Keating, Leo A.,	.	.	.	.	.	.	Natick.

Kebler, Fritz T., . . . . .	Rochdale.
Manchester, William A., . . . . .	Brockton.
McCann, Charles A., . . . . .	Worcester.
Merrill, Ralph M., . . . . .	Attleborough Falls.
Miller, Samuel J., . . . . .	Fall River.
Nickerson, Harold E., . . . . .	Orleans.
O'Keeffe, Thomas J., . . . . .	North Easton.
Philbrook, Frank L., . . . . .	Cambridge.
Smith, Alexander F., . . . . .	Nantucket.
Sparrow, Robert S., . . . . .	Eastham.
Sullivan, William A., . . . . .	East Boston.
Van Deusen, Jr., John F., . . . . .	Pittsfield.
Wiggin, William H., . . . . .	Brookline.

## SUMMARY.

Seaman Class.		Engineer Class.	
Midshipman, U. S. Navy, . . . . .	1	Chief engineers, . . . . .	11
Masters, . . . . .	7	First assistant engineers, . . . . .	5
First officers, . . . . .	16	Second assistant engineers, . . . . .	14
Second officers, . . . . .	29	Third assistant engineers, . . . . .	10
Third officers, . . . . .	17	Fourth assistant engineers, . . . . .	2
Fourth officers, . . . . .	2	Engineers and assistant en-	
Chief quartermasters, . . . . .	4	gineers, . . . . .	46
Quartermasters, . . . . .	81	Engineer cadets and oilers, . . . . .	61
Cadets and seamen, . . . . .	56	Firemen, . . . . .	10
Boatswains, . . . . .	2	Machinists, . . . . .	27
Chief yeomen, . . . . .	4	Machinists and warrant ma-	
Acting ensigns, U. S. Navy, . . . . .	3	chinists, U. S. Navy, . . . . .	11
Second lieutenants, revenue		Electricians, U. S. Navy, . . . . .	18
cutter service, . . . . .	2	Electricians, . . . . .	49
Third lieutenants, revenue		First assistant engineer, rev-	
cutter service, . . . . .	2	enue cutter service, . . . . .	1
Cadets, revenue cutter service, . . . . .	2	Second assistant engineers,	
Boat keepers, pilot boat ser-		revenue cutter service, . . . . .	4
vice, . . . . .	5		
Total, . . . . .	233	Total, . . . . .	269
Total, seaman and engineer cadets, . . . . .			502

## Class of Vessels.

Transatlantic steamers, . . . . .	94
Coastwise steamers, . . . . .	110
Pacific steamers, . . . . .	20
"Tramp" steamers and towboats, . . . . .	21
Steam yachts, . . . . .	23
Sailing vessels, . . . . .	33
Pilot boats, . . . . .	5

United States naval vessels, . . . . .	77
United States naval auxiliaries, . . . . .	28
United States transports, . . . . .	16
United States revenue cutter steamers, . . . . .	14
United States coast survey steamers, . . . . .	8
United States lighthouse steamers, . . . . .	12
At sea, . . . . .	461

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1907.*

Number in the school Jan. 1, 1907:—			
Seamanship class, . . . . .	15		
Engineer class, . . . . .	21		
Nautical cadets, . . . . .	37		
Total, . . . . .			73
Applications received, 1907, . . . . .		73	
Failed to appear for examination, . . . . .	12		
Applicants examined, . . . . .	61		
Examined, . . . . .		61	
Failed to pass mental examination, . . . . .	8		
Failed to pass physical examination, . . . . .	2		
Passed examinations, . . . . .	51		
Passed examinations, . . . . .	51		
Re-examined mentally and passed, . . . . .	4		
Re-examined physically and passed, . . . . .	1		
Readmitted, . . . . .	2		
Admitted conditionally, . . . . .	3		
	61		
Failed to qualify after passing examinations, . . . . .	1		
	60		
Total number admitted to school during 1907, . . . . .			60
Total number connected with school during 1907, . . . . .			133

*Cadets withdrawn during the Year 1907.*

Total number regularly graduated, . . . . .		25	
Seamanship class, . . . . .	10		
Engineer class, . . . . .	15		
Total number honorably discharged, . . . . .		17	
Seamanship class, . . . . .	3		
Engineer class, . . . . .	3		
Nautical cadets, . . . . .	11		
Total number graduated and honorably discharged, . . . . .		42	
Dropped from roll, . . . . .	4		
Dismissed, . . . . .	11		
Withdrawn, . . . . .	11		
Total number dropped, etc., . . . . .		26	
Total withdrawals during 1907, . . . . .			68
Number of cadets in the school Jan. 1, 1908, . . . . .			65
Seamanship class, . . . . .	7		
Engineer class, . . . . .	11		
Nautical cadets, . . . . .	47		

*Cadets admitted, graduated and honorably discharged, from 1893 to 1907, inclusive*

	ADMITTED.			GRADUATED.			HONORABLY DISCHARGED.			Withdrawn, dismissed, dropped, transferred.
	Seamanship Class.	Engineer Class.	Totals.	Seamanship Class.	Engineer Class.	Totals.	Seamanship Class.	Engineer Class.	Totals.	
1893,	138	-	138	-	-	-	29	-	29	24
1894,	42	21	63	-	-	-	26	17	43	18
1895,	33	38	71	19	19	38	6	6	12	6
1896,	35	39	74	20	17	37	16	15	31	17
1897,	32	41	73	20	21	41	10	10	20	9
1898,	42	57	99	15	25	40	12	14	26	23
1899,	34	45	79	11	12	23	24	17	41	11
1900,	28	50	78	14	36	50	9	12	21	14
1901,	34	37	71	11	18	29	8	12	20	16
1902,	32	58	90	16	22	38	16	18	34	13
1903,	34	32	66	17	14	31	10	15	25	17
1904, <sup>1</sup>	-	-	60	16	29	45	5	12	17	31
1905, <sup>1</sup>	-	-	65	10	10	20	-	7	9	13
1906, <sup>1</sup>	-	-	50	16	19	35	-	-	18	19
1907, <sup>1</sup>	-	-	60	10	15	25	-	-	17	26
Totals,	-	-	1,137	195	257	452	-	-	363	257

<sup>1</sup> Beginning in 1904, the cadets upon entrance are unclassified until their second year.

*Employment of Graduates and Cadets honorably discharged from 1893 to 1907, inclusive.*

GRADUATES' EMPLOYMENT.										EMPLOYMENT OF CADETS WITHDRAWN.				
AT SEA.					ON SHORE.					UNKNOWN.				
Seaman- ship Class.	Engi- neer Class.	Seaman- ship Class.	Engi- neer Class.	Totals.	Seaman- ship Class.	Engi- neer Class.	Seaman- ship Class.	Engi- neer Class.	Totals.	Seaman- ship Class.	Engi- neer Class.	Seaman- ship Class.	Engi- neer Class.	Totals.
1893, . . . . .	-	-	-	-	-	-	-	-	-	-	-	29	-	29
1894, . . . . .	-	-	-	-	-	-	9	8	-	5	3	12	6	43
1895, . . . . .	16	15	3	4	-	-	1	1	38	-	3	5	2	12
1896, . . . . .	18	14	2	3	-	-	5	3	37	2	3	9	9	31
1897, . . . . .	18	15	1	5	1	1	2	2	41	3	1	5	7	20
1898, . . . . .	12	21	3	3	-	1	3	1	40	3	1	6	12	26
1899, . . . . .	8	9	1	2	2	1	4	3	23	2	1	18	13	41
1900, . . . . .	13	21	1	10	-	5	2	1	50	-	1	7	10	21
1901, . . . . .	7	9	1	5	3	4	3	3	29	-	1	5	8	20
1902, . . . . .	14	15	1	3	1	4	2	5	38	2	1	12	12	34
1903, . . . . .	12	8	4	4	1	2	5	1	31	-	4	7	8	25
1904, . . . . .	12	12	1	5	3	12	-	5	45	3	2	2	5	17
1905, . . . . .	4	6	3	3	3	1	-	1	20	-	1	2	1	9
1906, . . . . .	11	15	4	5	-	-	1	-	35	-	-	1	3	18
1907, . . . . .	5	7	1	6	3	3	-	1	25	-	-	3	2	17
Totals,	150	167	26	58	17	34	37	35	452	20	22	123	98	363

NOTE.—The explanation of the difference between "461 cadets at sea," on page 20, and total number of graduates and cadets "honorably discharged at sea," given on page 22 as 389, is represented by 72 cadets dropped or withdrawn from the school without an honorable discharge in thirteen years, of whom we have an employment record.



## BILL OF FARE.

The ration of the United States Navy will be served, with such changes as the superintendent may deem advisable.

CODE OF DISCIPLINE FOR USE ON BOARD THE MASSACHUSETTS  
TRAINING SHIP "ENTERPRISE."

The Board of Commissioners of the Massachusetts Nautical Training School have adopted the following code for the guidance of the commander of the United States steamer "Enterprise" in maintaining proper discipline in this school, and he is hereby empowered to inflict such punishments as are here set forth, keeping a record of the same in a proper book for the inspection of the commission. He shall also make a report in writing to the Board of all punishments inflicted by him, or by his order, at the end of every month.

The offences for which punishment should be inflicted are hereby classified as follows:—

A. — Theft, drunkenness, lying, leaving ship without permission, refusing to obey the order of an officer or a cadet officer, or leaving the lookout while on watch.

The penalty for these offences, if proved, may be summary dismissal from the school.

For the investigation and determination of all offences of such a character charged against a cadet, a board shall be appointed by the superintendent; and the investigation shall be conducted under forms of procedure similar, as may be, to courts of inquiry in the Navy of the United States. The result of such investigation, determination and action shall be forwarded to the Board of Commissioners, with such remarks of approval or disapproval endorsed thereon as the superintendent may deem fit to make. No recommendation for the dismissal of a cadet shall be carried into effect until it has received the approval of the Board of Commissioners.

B. — Inattention to studies or at drill, failure to send in note or sight books, prevarication, persistent neglect of regulations, or leaving the deck while on watch.

The extreme penalty for these offences shall be confinement in the brig on bread and water, not to exceed three days, at

the discretion of the superintendent; but the superintendent is enjoined to use careful judgment in ordering such punishment.

*C.* — Lesser offences.

These are to be punished at the discretion of the superintendent by extra duties.

For offences *B* and *C*, deprivation of leave may be ordered, not to exceed ten days at any one time; and for bad conduct during the week the offender shall be denied the usual Sunday leave.

.

## APPROPRIATIONS.

The appropriations for the school for the fiscal year 1907, from Dec. 1, 1906, to Nov. 30, 1907, are here accounted for as follows:—

*Current Expenses.*

Appropriation, . . . . .	\$58,000 00
Expended:—	
Pay roll, . . . . .	\$26,358 95
Provisions, . . . . .	12,209 61
Text-books, instruments, etc., . . . . .	375 50
Seamanship department, . . . . .	3,351 03
Engineer department, . . . . .	8,880 58
Repairs, . . . . .	5,226 86
Miscellaneous, . . . . .	1,566 02
	<hr/>
Total amount expended, . . . . .	57,968 55
	<hr/>
Balance unexpended, . . . . .	\$31 45

*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
Expended:—	
Salaries, . . . . .	\$3,595 00
Books, stationery and postage, . . . . .	144 58
Commissioners' expenses, . . . . .	445 25
Advertising, . . . . .	261 20
Printing, . . . . .	142 11
Miscellaneous, . . . . .	396 42
	<hr/>
Total amount expended, . . . . .	4,984 56
	<hr/>
Balance unexpended, . . . . .	\$15 44

Respectfully submitted,

GEORGE F. F. WILDE, *Chairman,*

REAR ADMIRAL, U. S. N. (RETIRED),

ROBERT B. DIXON, M.D.,

HON. JOHN READ, LATE U. S. N.,

*Board of Commissioners.*

F. STANHOPE HILL, LATE U. S. N.,

*Secretary.*

## LEGAL AUTHORITY FOR THE SCHOOL.

## AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402, ACTS OF 1891.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of

this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECTION 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United



States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECTION 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [*Approved June 11, 1891.*]

## VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on military affairs, to whom was referred the matter of the approval of the United States ship "Enterprise" for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby —

*Ordered*, That the United States ship "Enterprise" be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk.*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### ESTABLISHMENT. \*

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.

## RECENT LEGISLATION.

[CHAPTER 171, ACTS OF 1903.]

AN ACT RELATIVE TO THE AMOUNT WHICH MAY ANNUALLY BE EXPENDED  
FOR THE MAINTENANCE OF THE MASSACHUSETTS NAUTICAL TRAIN-  
ING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words "not more than fifty thousand dollars," in the first and second lines, and inserting in place thereof the words: — such sum as the general court may from year to year appropriate. — so as to read as follows: — *Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

SECTION 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*]













U. S. S. "RANGER"

The "Ranger" is to replace the "Enterprise" as the nautical training ship of Massachusetts.

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SEVENTEENTH ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

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JANUARY 1, 1909.



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COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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GEORGE F. F. WILDE, *Chairman*,  
REAR ADMIRAL, U. S. N. (RETIRED).

HON. JOHN READ, LATE U. S. N.

WILLIAM E. MCKAY.

---

WILLIAM H. DIMICK, *Secretary*.



# Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the  
Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1908.

### THE WORK OF THE YEAR.

The work of Massachusetts in fitting young men for the merchant marine is recognized both at home and abroad as being of a high standard. Letters have been received from officials in Russia, Belgium and France, asking for information regarding the course of studies, requirements for admission, etc., for the purpose of improving the system of nautical education in those countries.

The commissioners have at all times exercised the strictest economy consistent with broad and efficient administration. The omission of the regular summer cruise has enabled them to return a balance of \$3,046.88 from the appropriation for current expenses.

The reputation of the graduates as capable deck and engineer officers has received wide acknowledgment. The number of captains in the merchant and government services who are showing their confidence in the practical worth of the young men from this school, by giving them the preference when vacancies occur, is steadily increasing.

During the last year the efficiency of the school has been somewhat impaired by a lack of proper equipment. In the

work of a nautical training school it is of vital importance that the equipment be in every respect sound and seaworthy. On account of defective boilers and engines, resulting from long use, for the first time since the school was established, seventeen years ago, the "Enterprise" did not make a summer cruise, the ship remaining at anchor in the ports of Provincetown and Gloucester. The annual cruise abroad has been an important part of the two years' course, and it cannot be omitted without injury to the school. While the theoretical instruction of the winter months is important, the best preparation for young men who intend adopting a seafaring career is actual experience in handling a ship at sea, and the longer the time at sea, the more thorough and effective will be the preparation.

Recognizing the urgent need of a new ship, the Board, on May 4, 1908, communicated with the Honorable Secretary of the Navy, requesting that the U. S. S. "Ranger" be turned over to the State of Massachusetts, to take the place of the U. S. S. "Enterprise" as the State nautical training ship. In response to this request a letter was received from Hon. Truman H. Newberry, Acting Secretary of the Navy, stating that the Department would be pleased to act favorably in the matter, and that the "Ranger" would be ordered to Boston from the Philippine Islands.

In accordance with the provisions of chapter 339, Revised Statutes of the United States, entitled "An Act to encourage the establishment of public marine schools," His Excellency Curtis Guild, Jr., Governor of the Commonwealth, made formal application to the Secretary of the Navy for the U. S. S. "Ranger," in exchange for the "Enterprise."

In answer to this official application for the "Ranger," the following letter was received from Hon. H. L. Satterlee, Assistant Secretary of the Navy:—

The Department takes pleasure in informing you that, agreeably to your request of the 1st instant, and in conformity with an act entitled, "An Act to encourage the establishment of public marine schools," the U. S. S. "Ranger" will be turned over to the State of Massachusetts, to take the place of the U. S. S. "Enterprise" as the nautical training ship of the State. The "Ranger" will be placed out of commission at the Boston Navy Yard within the next few days,



and after undergoing certain necessary repairs will be loaned to the State of Massachusetts for the purpose above mentioned. The probable date of the completion of repairs and of the transfer will be indicated to Your Excellency later.

### THE U. S. S. "RANGER."

The U. S. S. "Ranger" sailed from Cavite for Boston on August 25, under the command of Comdr. William R. Rush, U. S. N., and arrived in Boston on November 30, proceeding to a berth at the Navy Yard.

The "Ranger" is an iron gunboat, barkentine rigged, of 1,261 tons. Her dimensions are as follows: length, 177.4 feet; beam, 32 feet; draft, 13 feet. As the number of naval vessels suitable and available for State schoolships is small, the commissioners believe that the Commonwealth is fortunate in securing at this time a ship to replace the "Enterprise."

Since the announcement was made in July that the training ship "Enterprise" would be replaced by the U. S. S. "Ranger," and that the usual cruise would be made in 1909, there has been an increase in the number of applications received. The commissioners look forward to the new year expecting to obtain even better results than in the past.

### THE TRAINING SHIP "ENTERPRISE."

The United States sloop of war "Enterprise" was turned over to the State as a nautical training ship on Oct. 28, 1892, and accepted by the Governor and Council as a vessel suitable for the purpose on Nov. 9, 1892. The first cruise was made in the summer of 1893, sailing from Boston on April 15. As a training ship the "Enterprise" has made thirteen foreign and two domestic cruises, visiting the following foreign ports: Queenstown, Southampton, Liverpool, Falmouth, Leith, Gravesend, Copenhagen, Cronstadt, Antwerp, Havre, Lisbon, Cadiz, Gibraltar, Algiers, Tangier, Malaga, Funchal, Santa Cruz (Canary Islands), Las Palmas, Ponta Delgada, Horta, and Hamilton, Bermuda. During this time the ship has been in command of the following naval officers: Comdr. John F. Merry, U. S. N.; Comdr. J. Giles Eaton, U. S. N.; Comdr. Andrew J. Iverson, U. S. N.; Comdr. Frederick M. Wise, U. S. N.;

Comdr. Edward M. Hughes, U. S. N.; Comdr. Conway H. Arnold, U. S. N.; Comdr. Edward D. Taussig, U. S. N.; Comdr. William F. Low, U. S. N.

### THE SUMMER TERM.

On May 19 the "Enterprise" left for Provincetown. The ship remained at anchor in Provincetown from May 19 until July 14, and in Gloucester harbor from July 14 to September 16. The "Enterprise" arrived in Boston on September 16. The summer routine was followed with such modifications as were made necessary by the new conditions. Although the "Enterprise" did not make a cruise, the cadets were enabled to get a good deal of navigation and seamanship. The boat and sail drills were of great value in training the cadets.

The report of Comdr. William F. Low, U. S. N., superintendent of the school, on the summer term, is as follows:—

Owing to the poor condition of the ship's engines and boilers, it was deemed impracticable to make an extended cruise, and the entire summer was therefore spent at anchor in the ports of Provincetown and Gloucester.

Sails were bent on the foremast, and the cadets were instructed in the seamanship's branch in setting up rigging and reeving off gear, bending and unbending sails, making and taking in sail and reefing, stations for various evolutions under sail, knotting and splicing, the use of ground tackle, sending up and down light yards, practice with the hand lead and duties of quartermaster, captains of tops, officers of the deck, etc.

Portions of nearly every day were devoted to the use of ship's boats under oars and sails, and in both Provincetown and Gloucester the cadets were further instructed in handling a small sloop which was hired for the purpose. Considering the difficulties attending the carrying out of the summer's work, notably, the scarcity of officers and the monotony of an enforced stay for so long a time in one port, the result of the cruise has been in no way disappointing.

The conduct of the cadets, both ashore and afloat, was very gratifying.

### SEAMANSHIP AND NAVIGATION.

Sections A1 and A2 were given a general review of theoretical navigation, use of charts, sailing directions, tide tables, light lists and the use and adjustment of the various instruments used in navigation. Particular attention was given to work in taking and plotting bearings, the use and adjustment of the sextant and the various problems of piloting.

Sections C and D were given a general review, together with the use and adjustment of the sextant and practical work in taking and plotting bearings, keeping the log and reading the various nautical instruments.

Sections E and F were instructed in the elements of navigation, including the general definitions, various instruments used in navigation, boxing the compass and compass error.

#### ENGINEERING.

Sections B1 and B2 received practical instruction as follows:—

Elementary machine shop practice on the lathe, shaper and drill-press.

Care and operation of the dynamo and engine in direct connected units, repairs to same and to light and battery circuits.

Care and operation of machinery and boilers as installed in navy steam launches (Ward water-tube boiler, compound engine, duplex feed pump, air pump and keel condenser). The boiler having had to be cut out and rebuilt on this cruise, it afforded a good opportunity to learn construction and practical work on same.

Method of finding the dead center, and setting slide, piston and cut-off valves in engines and pumps; taking up lost motion in bearings, and use of leads for showing clearance in same; examination of cylinders and pistons, and lining up of same when dropped from wear or other causes.

Care, operation and repairs to evaporator and distillers.

Care, operation and repairs to main boilers; firing; testing for salt and acidity; care, operation and repairs to auxiliary pumps.

Piping: Owing to the poor condition of the piping and frequent breakdowns of same, the cadets were given considerable experience in repair work and laying in of new sections.

Cadets stood watch on main boilers and dynamo alone from 8 A.M. to 8 P.M.; on evaporator, from 5 A.M. to 8 P.M.; and in steam launch during running hours, alternating week about on the different units. As they had in most cases all night in, when they came off watch they were put on repair work, with the view of giving them, as far as possible, an all-round working experience.

#### MEDICAL DEPARTMENT.

The health of the cadets has been very good. The instruction has consisted in a course in first aid to the injured, including how to act in presence of an emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations; foreign bodies in eye, ear and throat; unconsciousness, fainting, shocks, compression, sunstroke; starving; drunkenness; convulsions; smothering by gas; hanging; drowning; poison; dog, snake or insect bites; poison ivy; making of poultices and dressings, etc.

In addition, cadets who intended to fit themselves for a future examination for admission to the United States revenue cutter service have been instructed in advanced English grammar and in general history.

### THE WINTER TERM.

During the fall vacation the ship was housed over and prepared for the use of the school during the winter. The fall and winter term commenced on Monday, November 9. The "Enterprise" is moored for the winter at the North End Park, Boston, at a berth which is obtained free of expense to the Commonwealth through the courtesy of the bath commissioners of the city of Boston.

Persons interested in the work of the school are cordially invited to visit the "Enterprise" at the North End Park on any day excepting Saturday and Sunday, when the cadets are absent on home leave.

Following are the officers and instructors of the training ship "Enterprise": Comdr. William F. Low, U. S. N., superintendent and commanding officer; Boatswain John Danner, U. S. N., executive officer; Warrant Machinist John O'Neill, U. S. N., chief engineer; A. Russell Cushing, navigating officer; Chief Boatswain John McGrath, U. S. N., watch officer; Dr. Edmund L. Saunders, medical officer; Mr. H. H. Damon, instructor in mathematics; Mr. Edward S. Groves, captain's clerk and commissary yeoman.

### PERSONNEL.

The changes in the commissioners, officers and instructors during the year have been as follows:—

July 1, 1908, Dr. Robert B. Dixon, whose term expired, declined a reappointment, on account of pressure of professional duties. Dr. Dixon was a most efficient and valuable member of the Board for thirteen years, and his resignation was accepted with regret by His Excellency the Governor.

July 22, 1908, Mr. William E. McKay of Milton was appointed a commissioner for a term of three years.

May 15, 1908, Capt. F. Stanhope Hill, after fourteen years of zealous and faithful service as secretary of the commission,



was retired at his own request by His Honor Lieutenant-Governor Eben S. Draper, Acting Governor, under the provisions of chapter 458 of the Acts of 1907. For a time previous to his appointment as secretary he was a commissioner of the school. Captain Hill, as a volunteer officer of the United States Navy, served in command of several naval vessels during the civil war, and in earlier years he was in command of merchant ships.

July 22, 1908, Mr. William H. Dimick, who had served as clerk of the Board for fourteen years, was appointed secretary. Mr. Dimick was examined by the Civil Service Commissioners, and certified for the promotion.

April 1, 1908, Fred'k S. McMurray was appointed executive officer of the "Enterprise."

April 4, 1908, Chief Boatswain Harry R. Brayton, U. S. N., executive officer of the "Enterprise," was detached by the Navy Department.

April 30, 1908, Chief Boatswain John McGrath, U. S. N., watch officer of the "Enterprise," resigned.

Aug. 14, 1908, Fred'k S. McMurray, executive officer of the "Enterprise," resigned.

Aug. 14, 1908, Mr. N. J. Wiener, captain's clerk, resigned.

Sept. 1, 1908, Mr. A. Russell Cushing, navigating officer, was appointed acting executive officer.

Aug. 24, 1908, Mr. Edward S. Groves was appointed captain's clerk and commissary yeoman.

Oct. 26, 1908, Chief Boatswain John McGrath, U. S. N., was appointed watch officer of the "Enterprise."

Nov. 2, 1908, Boatswain John Danner, U. S. N., reported for duty as executive officer of the "Enterprise."

Nov. 9, 1908, Mr. H. H. Damon was appointed instructor in mathematics.

#### THE GRADUATES OF THE SCHOOL.

Since the first class was graduated, in April, 1895, the school has annually sent out young men who have done efficient work on board vessels of the merchant marine. Superior work has won for many promotion to leading positions in the shipping world. Many of the most capable officers now at sea on board



coastwise and ocean-going vessels received their education on board the "Enterprise." The practical results obtained during the last ten years, when the American foreign-going merchant tonnage has been at its lowest ebb, is very gratifying to the commissioners.

There are at the present time many opportunities in the American merchant marine for young men who desire a seafaring career, and the promotion is rapid for any one who proves his ability. Any young man with a fair education who wishes to succeed in this profession can do so in the mercantile marine, as American shipping is in need of competent officers.

The decadence of the American merchant marine is generally deplored, and there is a widespread demand for its rehabilitation. If in the future we are to have a larger merchant marine, we will need more trained and competent officers, and the graduates of the Nautical Training School will be available to meet this need. One of the largest ship owners in Boston, in writing the commissioners, said: "We heartily approve of your school, for we do not see where we are to get officers for our vessels unless from this source." The square-rigged sailing vessel, the school in which many of the best American seamen were trained, has practically disappeared. The training ship is sure to take an important part in the future in producing competent seamen, if we are to maintain our prestige on the sea. Under the present conditions of our merchant marine, the best officers can come only from marine schools.

In writing on the subject of the nautical training school, a Boston paper recently said: —

Few of our citizens, aside from those whose boys are being educated on the "Enterprise," realize the advantage of the training it gives to an active, ambitious lad. It accustoms him to the minor hardships of life, it enables him to obtain a practical acquaintance with the sea without encountering any of its dangers, and it also gives him the general and technical education which he needs at the most susceptible period of his life. At the same time, it accustoms him to discipline, and that is one of its greatest, if not its greatest, advantage.

The following is an abstract from the employment record of the graduates: —

NAME.	SHIP.
Alger, James A., . . . .	U. S. R. C. "Seneca."
Anderson, Carl E. A., . . . .	S. S. "Arizonan."
Atkins, H. W. G., . . . .	S. S. "Adanse."
Bailey, I. Clarence, . . . .	Pilot boat "America."
Baxter, Thomas, . . . .	Midshipman, United States Naval Academy.
Bicknell, Theodore H., . . . .	S. S. "Kenosha."
Bostwick, Harry M., . . . .	Naval auxiliary "Abarenda."
Bradford, Gershom, . . . .	Hydrographic office, Washington.
Bragg, Archie E., . . . .	Lighthouse tender "Mayflower."
Bumpus, Charles W., . . . .	S. S. "Cape Ann."
Butler, Daniel F., . . . .	Lightship No. 41.
Cameron, Geo. H., . . . .	S. S. "Saratoga."
Carlton, Fred G., . . . .	U. S. S. "New Jersey."
Carr, John T., . . . .	U. S. R. C. "Apache."
Chaney, Eugene E., . . . .	U. S. S. "Tacoma."
Chick, Harry L., . . . .	Naval auxiliary "Hannibal."
Chisholm, Thos. W., . . . .	Naval auxiliary "Abarenda."
Clapp, Leander A., . . . .	Naval auxiliary "Ajax."
Clark, Forest D., . . . .	Steamer "Harvard."
Clift, Charles W., . . . .	S. S. "McClellan."
Coburn, Harry C., . . . .	S. S. "Nebraskan."
Coholan, John J., . . . .	Naval auxiliary "Alexander."
Collie, George A., . . . .	Hydrographic office, Washington.
Colony, Carl E., . . . .	Steamer "City of Augusta."
Congdon, Louis E., . . . .	Steamer "Lampasas."
Conger, Edwin G., . . . .	U. S. S. "Rhode Island."
Copeland, Howard G., . . . .	U. S. S. "Gloucester" (Massachusetts Naval Militia).
Cornwall, Hollis M., . . . .	S. S. "Persian."
Coughlan, Fred'k M., . . . .	Steamer "Providence."
Cummings, Alfred M., . . . .	Naval auxiliary "Ajax."
Cushing, A. Russell, . . . .	Nautical training ship "Enterprise."
Cushman, Cassius E., . . . .	Steamer "Persian."
Davis, Frank B., . . . .	Steamer "Olivette."
Dolan, William R., . . . .	U. S. S. "Cleveland."
Dyson, C. George, . . . .	U. S. S. "Georgia."
Eaton, George E., . . . .	Lighthouse tender "Azalea."
Farwell, Lorenzo C., . . . .	Revenue cutter practice ship "Itasca."
Flannigan, Ernest J., . . . .	Naval auxiliary service.
Foster, Victor M., . . . .	Steamer "Satellite."
Gifford, William M., . . . .	Lighthouse tender "Mayflower."
Gladding, Bradford N. A., . . . .	S. S. "Pequonnock."
Gourville, William, . . . .	Steamer "Dreamer."
Haynes, Alvin W., . . . .	S. S. "Panama."
Holbrook, C. Allan, . . . .	U. S. S. "Idaho."
Holmes, Leslie F., . . . .	S. S. "Antilles."
Houghton, Louis H., . . . .	U. S. S. "Missouri."

NAME.	SHIP.
Howes, James S., . . . .	Steamer "Indian."
Howes, Willis, . . . .	Transport "Wright."
Kelley, Laurence G., . . . .	U. S. S. "Illinois."
Killion, Frank P., . . . .	S. S. "Helene."
Kinnaly, John F., . . . .	U. S. S. "Vermont."
Knight, William B., . . . .	S. S. "City of Seattle."
Lamont, Wilbur S., . . . .	Steamer "Pocomoke."
LaMontagne, Louis L., . . . .	Steamer "Pilgrim."
Lauriatt, Geo. R., . . . .	S. S. "H. M. Wilson."
Lauriatt, Philip, . . . .	U. S. R. C. "Rush."
Lee, William H., . . . .	Naval auxiliary "Hannibal."
Lockhart, Walter C., . . . .	Naval auxiliary "Marcellus."
Lowe, Charles E., . . . .	Naval auxiliary "Abarenda."
Macomber, Philip, . . . .	Naval auxiliary "Nero."
Madden, Edwin J., . . . .	S. S. "St. Louis."
Maglathlin, Webb C., . . . .	U. S. R. C. "Thetis."
Marcy, Philip B., . . . .	Steam yacht "Mohawk."
McGourty, John F., . . . .	U. S. R. C. "Tuscarora."
McIntyre, Cecil L., . . . .	S. S. "Seneca."
McKay, Osborne E., . . . .	Naval auxiliary "Lebanon."
Meehan, James H. B., . . . .	Naval auxiliary "Nero."
Merriam, Philip W., . . . .	S. S. "City of Augusta."
Morey, Arthur W., . . . .	Hydrographic office, Washington.
Morgan, Carroll L., . . . .	U. S. S. "Connecticut."
O'Connell, Benjamin, . . . .	S. S. "Colon."
O'Reilly, William I., . . . .	S. S. "Queen."
Parker, Herman T., . . . .	S. S. "Parthian."
Patterson, Albert F., . . . .	U. S. R. C. "Gresham."
Patterson, Robert A., . . . .	Naval auxiliary "Ajax."
Pellett, Thomas B., . . . .	S. S. "New York."
Reardon, James E., . . . .	Steamer "Windber."
Rice, Emery, . . . .	S. S. "Manchuria."
Roberts, Edward C., . . . .	S. S. "Ramos."
Rowe, Charles E., . . . .	Naval auxiliary "Nero."
Sears, Frazier L., . . . .	S. S. "St. Paul."
Seibert, Fred C., . . . .	Naval auxiliary "Iris."
Sheedy, John C., . . . .	S. S. "Admiral Schley."
Sheedy, Joseph E., . . . .	U. S. R. C. "Androscoggin."
Shevlin, Eugene P., . . . .	Lighthouse tender "Mayflower."
Sibley, Norris R., . . . .	S. S. "Francis Hyde."
Small, Elmer B., . . . .	Merchants & Miners Transportation Company.
Smith, Edward, . . . .	S. S. "Coya."
Smith, Walter L., . . . .	Naval auxiliary "Cæsar."
Sparks, Fred'k A., . . . .	Steam yacht "Machigonne."
Stackpole, Fred H., . . . .	Steamer "City of Brockton."
Stickney, George H., . . . .	Towboat "Scranton."
Tarr, Charles F., . . . .	Naval auxiliary "Cæsar."
Towle, William F., . . . .	Cadet, revenue cutter service.

NAME.	SHIP.
Waite, George F., . . . .	S. S. "Altamaha."
Walker, Fred'k S., . . . .	Lighthouse tender "Azalea."
Whippen, Jos. G., . . . .	U. S. S. "Rhode Island."
Wier, Joseph R., . . . .	Naval auxiliary "Nero."
Wood, Clarence E., . . . .	U. S. S. "Virginia."
Woodbury, Mark, . . . .	Steamer "City of Memphis."
Young, Charles S., . . . .	Hydrographic office, Washington.

## SUMMARY.

Seaman Class.	Engineer Class.
Ensign, U. S. Navy, . . . . 1	Chief engineers, . . . . 14
Midshipman, U. S. Navy, . . 1	First assistant engineers, . . 8
Masters, . . . . . 7	Second assistant engineers, . . 12
First officers, . . . . . 22	Third assistant engineers, . . 8
Second officers, . . . . . 31	Fourth assistant engineers, . . 4
Third officers, . . . . . 18	Engineers and assistant en-
Fourth officers, . . . . . 2	gineers, . . . . . 48
Quartermasters, . . . . . 89	Engineer cadets and oilers, . . 61
Cadets and seamen, . . . . . 56	Firemen, . . . . . 10
Chief yeomen, . . . . . 3	Machinists, . . . . . 27
Second lieutenants, revenue	Machinists and warrant ma-
cutter service, . . . . . 2	chinist, U. S. Navy, . . . . 10
Third lieutenants, revenue cut-	Electricians, U. S. Navy, . . . 18
ter service, . . . . . 3	Electricians, . . . . . 49
Cadets, revenue cutter service, . 1	Second lieutenant of engineers,
Boat keepers, pilot boat serv-	revenue cutter service, . . . 2
ice, . . . . . 5	Third lieutenant of engineers,
	revenue cutter service, . . . 3
Total, . . . . . 241	Total, . . . . . 274
Total, seamen and engineer cadets, . . . . . 515	

## CADETS ADMITTED, GRADUATED, AND HONORABLY DISCHARGED, FROM 1893 TO 1908, INCLUSIVE.

	ADMITTED.			GRADUATED.			HONORABLY DISCHARGED.			Withdrawn, dismissed, dropped, transferred.
	Seamanship Class.	Engineer Class.	Totals.	Seamanship Class.	Engineer Class.	Totals.	Seamanship Class.	Engineer Class.	Totals.	
1893,	138	-	138	-	-	-	29	-	29	24
1894,	42	21	63	-	-	-	26	17	43	18
1895,	33	38	71	19	19	38	6	6	12	6
1896,	35	39	74	20	17	37	16	15	31	17
1897,	32	41	73	20	21	41	10	10	20	9
1898,	42	57	99	15	25	40	12	14	26	23
1899,	34	45	79	11	12	23	24	17	41	11
1900,	28	50	78	14	36	50	9	12	21	14
1901,	34	37	71	11	18	29	8	12	20	16
1902,	32	58	90	16	22	38	16	18	34	13
1903,	34	32	66	17	14	31	10	15	25	17
1904, <sup>1</sup>	-	-	60	16	29	45	5	12	17	31
1905, <sup>1</sup>	-	-	65	10	10	20	-	-	9	13
1906, <sup>1</sup>	-	-	50	16	19	35	-	-	18	19
1907, <sup>1</sup>	-	-	60	10	15	25	-	-	17	26
1908, <sup>1</sup>	-	-	45	8	9	17	-	-	9	9
Totals,	-	-	1,182	203	266	469	-	-	372	266

<sup>1</sup> Beginning in 1904, the cadets upon entrance are unclassified until their second year.



## STATISTICS OF CADETS.

*Cadets admitted during the Year 1908.*

Number in the school Jan. 1, 1908:—			
Seamanship class, . . . . .		7	
Engineer class, . . . . .		11	
Nautical cadets, . . . . .		47	
Total, . . . . .			65
Applications received, 1908, . . . . .			65
Applicants examined, . . . . .	54		
Failed to appear for examination, . . . . .	9		
Awaiting examination, . . . . .	2		
Examined, . . . . .			54
Failed to pass mental examination, . . . . .	13		
Failed to pass physical examination, . . . . .	1		
Failed mentally and physically, . . . . .	3		
Passed examinations, . . . . .	37		
Passed examinations, . . . . .	37		
Re-examined mentally and passed, . . . . .	9		
Readmitted, . . . . .	3		
	49		
Failed to qualify after passing examinations, . . . . .	4		
	45		
Total number admitted to school during 1908, . . . . .			45
Total number connected with school during 1908, . . . . .			110

*Cadets withdrawn during the Year 1908.*

Total number regularly graduated, . . . . .			17
Seamanship class, . . . . .	8		
Engineer class, . . . . .	9		
Total number honorably discharged, . . . . .			9
Engineer class, . . . . .	1		
Nautical cadets, . . . . .	1		
Total number graduated and honorably discharged, . . . . .			26
Dropped from roll, . . . . .	5		
Dismissed, . . . . .	1		
Withdrawn, . . . . .	2		
Died, . . . . .	1		
Total number dropped, etc., . . . . .			9
Total withdrawals during 1908, . . . . .			35
Number of cadets in the school Jan. 1, 1909, . . . . .			75
Seamanship class, . . . . .	14		
Engineer class, . . . . .	22		
Nautical cadets, . . . . .	39		

## MEMBERSHIP OF THE SCHOOL.

*Graduating Class, April, 1908.*

Bassett, Harold W.,	.	.	.	.	.	East Milton.
Burns, Kenneth B.,	.	.	.	.	.	Plymouth.
Cameron, George H.,	.	.	.	.	.	Wakefield.
Killen, George J.,	.	.	.	.	.	Lawrence.
Larner, Harold,	.	.	.	.	.	Cambridgeport.
McWilliams, Joseph,	.	.	.	.	.	Boston.
Pellett, Thomas B.,	.	.	.	.	.	Worcester.
Persson, Eric O. W.,	.	.	.	.	.	West Lynn.
Shevlin, Eugene P.,	.	.	.	.	.	East Boston.
Whiton, Arthur E.,	.	.	.	.	.	Wakefield.

*Graduating Class, October, 1908.*

Curtis, Miles K.,	.	.	.	.	.	Athol.
Downs, John W.,	.	.	.	.	.	Orleans.
Ells, Jr., Edward S.,	.	.	.	.	.	Cambridge.
Farquhar, Frederick W.,	.	.	.	.	.	Lawrence.
Mellen, Chester B.,	.	.	.	.	.	Quincy.
Robinson, Ernest F.,	.	.	.	.	.	East Boston.
Walker, Arthur R.,	.	.	.	.	.	Whitman.

*Class to graduate April, 1909.*

Bear, John R.,	.	.	.	.	.	Winthrop.
Conelly, John J.,	.	.	.	.	.	Stony Brook.
Cooper, Harold C.,	.	.	.	.	.	Malden.
Grimshaw, Seabrook P.,	.	.	.	.	.	New Bedford.
Hart, Leslie S.,	.	.	.	.	.	Lynn.
Henry, Richard K.,	.	.	.	.	.	Pittsfield.
Jones, Louis F.,	.	.	.	.	.	Brockton.
Kelley, Ervin L.,	.	.	.	.	.	Roxbury.
Morse, Arthur A.,	.	.	.	.	.	Lynn.
O'Keeffe, John D.,	.	.	.	.	.	North Easton.
Perry, Edgar A.,	.	.	.	.	.	Boston.
Ross, Harold E.,	.	.	.	.	.	Amesbury.
Sillars, William A.,	.	.	.	.	.	Danvers.
Sylvia, Frederick H. H.,	.	.	.	.	.	Nantucket.
Ward, Everett B.,	.	.	.	.	.	Lynn.
Wilson, Leland S.,	.	.	.	.	.	Beverly.
Winqvist, Eric E.,	.	.	.	.	.	Jamaica Plain.

*Class to graduate October, 1909.*

Caddigan, William E., . . . . .	Allston.
Collins, George H., . . . . .	Needham.
Gill, Maurice D., . . . . .	North Eastham.
Habersham, Stanton, . . . . .	Chilmark.
Hamilton, Woodbury R., . . . . .	Dorchester.
Higgins, Carroll E., . . . . .	Orleans.
Hines, Robert F., . . . . .	East Boston.
Keating, Leo A., . . . . .	Natick.
Kebler, Fritz T., . . . . .	Rochdale.
Manchester, William A., . . . . .	Brockton.
McCann, Charles A., . . . . .	Worcester.
Miller, Samuel J., . . . . .	Fall River.
O'Keeffe, Thomas J., . . . . .	North Easton.
Smith, Alexander F., . . . . .	Nantucket.
Sparrow, Robert S., . . . . .	Eastham.
Sullivan, William A., . . . . .	East Boston.
Van Deusen, Jr., John F., . . . . .	Pittsfield.
Wiggin, William H., . . . . .	Brookline.

*Class to graduate April, 1910.*

Badger, Leslie S., . . . . .	Wakefield.
Bailey, J. Leon, . . . . .	Watertown.
Copeland, Robert C. M., . . . . .	Wareham.
Downey, Clifton W., . . . . .	Maynard.
Doyle, William H., . . . . .	Malden.
Dwyer, Thomas N., . . . . .	Dorchester.
Griswold, George F., . . . . .	Watertown.
Harrington, Raymond L., . . . . .	North Leominster.
Hoyle, Harold P., . . . . .	Millbury.
Lewis, Charles R., . . . . .	Dorchester.
Loundes, Howell S., . . . . .	Worcester.
McCarthy, Frank J., . . . . .	Boston.
Phinney, William M., . . . . .	West Somerville.
Tumey, Charles H., . . . . .	Southbridge.
Wiley, Frederick B., . . . . .	Wakefield.
Wyatt, Ernest B., . . . . .	Wakefield.

*Class to graduate October, 1910.*

Anderson, R. Wilbur, . . . . .	Roslindale.
Barnes, John W., . . . . .	Dorchester.
Barris, Edward R., . . . . .	Lowell.
Beck, Raymond L., . . . . .	Attleborough.
Bowen, William, . . . . .	Cambridge.

Case, Paul,	Brockton.
Cobb, Otis W.,	Wellesley Hills.
Field, Freeman R.,	Cambridge.
Gage, Clinton H.,	Hull.
Grover, Harold C.,	Stoneham.
Hutchinson, Chas. S.,	Peabody.
Jameson, Robert,	Chicopee Falls.
McKenzie, William H.,	Boston.
McMillen, Fredric,	Billerica.
Miller, John J.,	Hyde Park.
Morris, Chester E.,	Springfield.
Older, Archibald W.,	Winthrop.
Philbrook, Frank L.,	Malden.
Scanlon, John J.,	South Boston.
Sibley, George W.,	Worcester.
Stevenson, Eugene F.,	Spencer.
Sullivan, Russell H.,	Westfield.
Tewksbury, Allan W.,	Winthrop.
Tyler, Franklin K.,	Beachmont.

#### AMERICAN TRAINING SHIPS.

There are three marine schools in this country, located at Philadelphia, New York and Boston. New York, the greatest shipping port in the country, was the first to establish a school of this kind, in 1874, immediately upon the passage of the act of Congress encouraging the establishment of public marine schools. For thirty-three years the New York school was successfully maintained on board the U. S. frigate "St. Mary's." On Feb. 17, 1908, the school was transferred to the gunboat "Newport," a ship loaned the school by the Navy Department to replace the "St. Mary's," which had become unserviceable.

The State of Pennsylvania and the city of Philadelphia have for many years joined in the work of maintaining a nautical school on board the U. S. frigate "Saratoga," with headquarters at Philadelphia.

The Board of Directors recently obtained the U. S. S. "Adams" from the Navy Department, to take the place of the "Saratoga." The "Adams" left Philadelphia about the first of September for a three months' cruise, visiting Southampton, Eng., Cherbourg, France, and Gibraltar. It has been the custom of this school to make a cruise to Europe in the summer, and another one to the West Indies in the winter.

## THE TRAINING SHIPS OF OTHER COUNTRIES.

The maritime nations of Europe, with one or two exceptions, have for years maintained nautical schools for the benefit of young men desiring to learn the seaman's profession. It is only natural that Great Britain, with her gigantic navy and merchant marine, should give greater emphasis to nautical education than any other country. It is worthy of note, however, that one of the largest and finest training ships afloat is found under the Japanese flag.

*Great Britain.*

The Thames Nautical Training College, located on board H. M. S. "Worcester," was established about 1860. The "Worcester," formerly the "Frederick William," is 4,725 tons, and was loaned to the school by the British Admiralty.

The "Worcester" does not make a cruise, being anchored in the lower Thames, near Greenwich. She has four decks, is rigged as a three-masted ship, and accommodates about 100 cadets. Admiral Togo of the Japanese navy obtained his sea training on board the "Worcester."

Since the year 1859 the Mercantile Marine Service Association of Liverpool has maintained a nautical school on board the "Conway." The present "Conway" was loaned to the association by the Admiralty in 1875, and was formerly a first-class battleship. The ship is anchored at Rock Ferry, near Liverpool, and, like the "Worcester," does not make a cruise. About 200 students, between twelve and fifteen years of age, are cared for in this school.

Six appointments for cadets in the Royal Navy are made each year by competitive examination from the young men of the "Worcester" and "Conway;" two appointments are made at each of three periods. The King presents annually a gold medal to each school. Prize days are held under the presidency of a member of the royal family, the Lord of the Admiralty, or some prominent member of the marine world.

*The "Warspite."* — This is the oldest of the English training schools, being one hundred and fifty-one years old. The "Warspite" is under the control of the Marine Society. The



Right Honorable the Earl of Romney, president. In 1907, 350 boys were on the rolls of the school. Since the school was established 65,188 boys have been trained for the sea. The "Warspite" is anchored near Greenhithe permanently. The school simply teaches the rudiments of a sailor's life, and trains the boy for the fore-castle.

*The "Port Jackson."* — A firm in London has for several years fitted out sailing vessels, under the direction of Lord Brassey, for the purpose of giving a limited number of young men a nautical education. The "Illavara" and the "Macquarie" were first used for the purpose, and they were superseded by the four-masted sailing ship the "Port Jackson." The cost to the cadet the first year is \$350; the second year, \$325; and the third year, \$300. The fitting-out expenses are paid by the cadet, in addition. The cruise, which lasts about nine months, is usually from London to Australia, returning via Cape Horn. The average number of cadets on board is 50.

#### *Germany.*

The German Training Ship Association of Bremen has charge of the work of training German lads for the sea. The schoolship "Gross-herzogin Elizabeth" was built in 1901, and is a three-masted sailing ship. The captain and six officers are secured from among those of the North German Lloyd and Hamburg-American lines. The ship does not carry a cargo. Applicants are admitted in the spring and fall, the age limit being from fourteen and one-half to sixteen years, except for those who have qualified as one-year volunteers in the navy, and for such the limit is advanced to eighteen years. The term of enlistment is eleven months, the best students remaining on board the ship two years more, either as cadets or ordinary seamen.

The North German Lloyd Steamship Company maintain two sailing vessels as schoolships, in order to secure competent officers for its many steamers. The "Herzogin Sophie Charlotte," built in 1895, and the "Herzogin Cecilie," built in 1902, are the vessels used by the company; they are four-masted, square-rigged sailing vessels. These ships are under the control of a board of naval officers. The course being three years.

the boys enlist the first year as apprentices, the second year they are ordinary seamen and the third year they are rated as able seamen. Forty cadets are received a year, making the total number on board about 120. The staff consists of a captain, 4 officers, 2 professors and a surgeon. The ships carry freight, and make voyages to the west American coast.

After having served three years on board the sailing ships, the cadets spend from nine to twelve months on board one of the steamers of the company as chief seaman, which qualifies them to take the examination as a marine lieutenant. After obtaining the diploma of marine lieutenant, the cadet is placed, when an opportunity presents itself, on board one of the steamships of the company as a fourth officer. Two years of duty as an officer entitle the cadet to present himself at the navigation school, to obtain, after five months of study, a certificate as captain of vessels trading in foreign waters.

### *Belgium.*

The Belgian Nautical School is conducted by the Belgian Maritime Association, a private society, with a capital of \$100,000. An appropriation is made for the school by the Belgian government and the province of Antwerp.

The first training ship, the "Comte Smet de Naeyer," foundered at sea. An English three-masted steel ship, the "Linlithgowshire," was then purchased in Ghent, renamed the "Comte de Smet de Naeyer," and fitted for a schoolship. She is anchored in the d'Escaut, a little above Antwerp. After spending six or eight months on board the "Comte de Smet de Naeyer," the cadets are transferred to the four-masted ship, the "L'Avenir," where they obtain practical instruction at sea. The "L'Avenir" was launched on May 2, 1908, at Bremerhaven, Germany. She is a steel four-masted bark of 3,700 tons. The principal dimensions are as follows: length, over all, 305 feet; beam, 45 feet; depth, 27 feet, 5 inches. The "L'Avenir" will make three cruises during the four years' course.

*Denmark.*

In the year 1880 Mr. Frederick Staag, a former sea captain, gave a large part of his fortune for the purpose of maintaining a nautical school. The small three-masted ship, the "George Staag," of 200 tons, takes about 60 cadets a year, and makes a cruise in the Baltic, anchoring at Copenhagen during the winter months.

The "George Staag" being too small to make long voyages, the "Viking," of 3,000 tons, was acquired. Applicants for admission to the "Viking" must be between fourteen and eighteen years of age. A diploma is granted after three years' experience at sea. The first year is mainly devoted to scholastic work, the second year to the theory and practice of seamanship and navigation and the third year the cadets stand a watch.

*Sweden.*

A wealthy merchant by the name of Abraham Rydberg, who died about the year 1848, bequeathed a large sum of money, in addition to a small brig, for the promotion of nautical education in Sweden. About thirty years ago a new ship, the "Albert Rydberg," was purchased for the school, and is still being used.

About 70 cadets are taken on board annually, who are given their tuition and board free. The ship sails about the middle of June for a cruise in the Baltic Sea, Skager-Rack and the North Sea, returning to Stockholm the last of August. The age limit of applicants for admission is from fourteen to twenty years. The Swedish Mercantile Society aids the work financially.

*Japan.*

In Japan there are nine local schools and one college, the Imperial Nautical College at Tokio, educating young men for the Japanese merchant marine. The local schools are located at Hokkaido, Miye-ken, Yamaguchi-ken, Shimane-ken, Okayama-ken, Hiroshima-ken, Kagawa-ken, Yehime-ken and Saga-ken.

The Imperial Nautical College possesses the training ship "Taisei Maru," of 2,298 tons, for the practical application of what the cadets have studied at the college. The "Taisei Maru," launched at the Kawasaki dock-yard of Kobe, in 1904, is a steel sailing vessel supplied with an auxiliary engine, and has a complete modern equipment. Her first voyage was made to Australia; her second voyage to Luzon, Manila; and her third voyage to Brisbane, Australia. During the past year the itinerary of the "Taisei Maru" included visits to San Francisco, Panama, Capica, South America and Honolulu.

The dimensions of the Japanese training ship are as follows: length, 270 feet; breadth, 44 feet; depth, 26 feet, 9 inches. She is a four-masted bark, provided with two sets of auxiliary engines, driving twin screws. The vessel carries 13 officers, 120 cadets and 54 men.

#### APPROPRIATIONS.

The appropriations for the school for the fiscal year 1908, from Dec. 1, 1907, to Nov. 30, 1908, are here accounted for as follows:—

##### *Current Expenses.*

Appropriation, . . . . .	\$53,000 00
Expended:—	
Pay roll, . . . . .	\$25,443 46
Provisions, . . . . .	11,310 43
Text-books, stationery and printing, . . . . .	823 89
Seamanship department, . . . . .	4,282 89
Engineer department, . . . . .	5,645 42
Repairs, . . . . .	1,098 46
Miscellaneous, . . . . .	1,348 57
	<hr/>
Total amount expended, . . . . .	49,953 12
	<hr/>
Balance unexpended, . . . . .	\$3,046 88



*Office Expenses.*

Appropriation, . . . . .	\$3,000 00
Transferred, from appropriation for extraordinary expenses, . . . . .	282 78
	<hr/>
	\$3,282 78

## Expended: —

Salaries, . . . . .	\$2,800 82
Stationery and postage, . . . . .	148 01
Commissioners' expenses, . . . . .	191 99
Printing, . . . . .	72 66
Miscellaneous, . . . . .	69 30
	<hr/>

Total amount expended, . . . . . \$3,282 78

The commissioners desire to acknowledge their indebtedness to Prof. Andre Van Iseghem, Brussels, Lieut. Henry T. A. Bosanquet, R. N., London, the secretary of the Belgian Maritime Association, Antwerp, and Mr. K. Uchida, Tokio, for valuable information regarding the marine schools of Europe and Japan.

Respectfully submitted,

GEORGE F. F. WILDE, U. S. N. (RETIRED).  
HON. JOHN READ, LATE U. S. N.  
WILLIAM E. MCKAY.

BOSTON, Jan. 1, 1909.

## LEGAL AUTHORITY FOR THE SCHOOL.

## AUTHORITY OF THE UNITED STATES.

[CHAPTER 339, JUNE 20, 1874.]

## AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

[CHAPTER 402, ACTS OF 1891.]

## AN ACT TO ESTABLISH A NAUTICAL TRAINING SCHOOL.

*Be it enacted, etc, as follows:*

SECTION 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of



this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

SECTION 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

SECTION 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished by the United

States government and turned over to the Commonwealth, and the same approved of and accepted by the governor and council.

SECTION 6. Said commissioners shall annually in the month of January make a report to the legislature, presenting a detailed statement of all moneys appropriated and expended for the purposes of the nautical training school during the year preceding; also stating the results of the work during such year, and making such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [*Approved June 11, 1891.*]

## VOTE OF EXECUTIVE COUNCIL UPON ACCEPTANCE BY THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS,

COUNCIL CHAMBER, BOSTON, Nov. 9, 1892.

The committee on military affairs, to whom was referred the matter of the approval of the United States ship "Enterprise" for the purpose of a nautical training school, submit the following report.

E. V. MITCHELL, *for the Committee.*

Chapter 402 of the Acts of the year 1891 provides for the establishment of a nautical training school in this Commonwealth, and section 2 of said act authorizes an expenditure of fifty thousand dollars to properly maintain the proposed school, and also provides for the furnishing by the United States government of a suitable vessel for such school which shall be turned over to the Commonwealth and accepted by the Governor and Council; and whereas, the United States having furnished a suitable vessel and the same having been examined by the Executive Council, it is hereby —

*Ordered*, That the United States ship "Enterprise" be approved and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk.*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

### ESTABLISHMENT.

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.

## ADDITIONAL LEGISLATION.

[CHAPTER 171, ACTS OF 1903.]

AN ACT RELATIVE TO THE AMOUNT WHICH MAY ANNUALLY BE EXPENDED  
FOR THE MAINTENANCE OF THE MASSACHUSETTS NAUTICAL TRAIN-  
ING SCHOOL.

*Be it enacted, etc., as follows:*

SECTION 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words "not more than fifty thousand dollars," in the first and second lines, and inserting in place thereof the words: — such sum as the general court may from year to year appropriate, — so as to read as follows: — *Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

SECTION 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*]





The U. S. S. RANGER, which replaced the school-ship Enterprise on April 26, 1909



EIGHTEENTH ANNUAL REPORT  
OF  
THE COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

---

JANUARY 1, 1910.



BOSTON:  
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1910.



COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

---

GEORGE F. F. WILDE, *Chairman*,  
REAR ADMIRAL, U. S. N. (RETIRED).  
HON. JOHN READ, LATE U. S. N.  
WILLIAM E. MCKAY.

---

WILLIAM H. DIMICK, *Secretary*.



# The Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1909.

### THE WORK OF THE YEAR.

As the U. S. S. "Enterprise" was in need of very extensive repairs, resulting from long service, the commissioners last year deemed it advisable to communicate with the Navy Department in regard to the possibility of the Commonwealth being furnished with a more serviceable vessel, mentioning the U. S. S. "Ranger" as a desirable ship for the school. Responding immediately to this communication, the department stated that the "Ranger" would be ordered home from the Philippines, and, in due time, turned over to the State of Massachusetts. In compliance with the provisions of chapter 339, Revised Statutes of the United States, entitled "An Act to encourage the establishment of public marine schools," the Governor of the Commonwealth made application to the Secretary of the Navy for the U. S. S. "Ranger." The "Ranger" arrived in Boston on Nov. 30, 1908, and after being overhauled at the Boston Navy Yard, was transferred to the Commonwealth on April 26, 1909, as the nautical training ship of the State. The "Enterprise" was returned to the Navy Department upon the receipt of the "Ranger."

The April entering class was the largest, with one exception, since the school was established, the number of applicants being



much in excess of the capacity of the school. No year since the work of promoting nautical education was inaugurated by the State has it been more popular. The demand for cadetships has been larger than ever before, and the graduates of the school have made rapid strides in enlarging the scope and usefulness of their work in the merchant marine, the school having received the favor and co-operation of the shipping interests, not only in New York and Boston, but throughout the country. In pursuance of the policy to give the cadets more experience at sea, the usual four months' cruise was extended to over five months, greatly to the advantage of the practical work.

In order to place the ship in a suitable condition for the winter term, it was necessary to make repairs and improvements during the fall vacation. A new house, partially covering the spar deck, providing a study and recitation room, was constructed; the heating plant was improved and enlarged; metal lockers for the use of the cadets were installed; and many minor repairs and alterations were made to the ship. Additional improvements to the equipment, including the installation of a wireless telegraph outfit and a submarine signal apparatus, will be made in the spring.

It is believed that the advantages of this branch of the educational work of the Commonwealth should be brought to the attention of the people in all parts of the State. To this end the work of advertising the school through newspapers and bulletins has been carried on extensively.

All cadets admitted are entered as nautical cadets, without classification as seamen or engineer cadets. During the first year of the course instruction is given in both branches, practical work in seamanship alternating with engineering duties. At the close of the first year of the term the class is divided into seamen and engineer branches, upon the recommendation of the superintendent, based upon a report from the heads of departments as to the relative fitness of each member of the class for assignment to either the one branch or the other.

The popular approval which nautical education has received, since its inception thirty-five years ago by act of Congress, has demonstrated the wisdom of such education. A fruitful

effort has been made by the commissioners to obtain the co-operation of men having in charge shipping interests. It has been their aim and desire so to interest marine superintendents, captains and others in the school as to induce them, whenever possible, to give graduates the preference when in need of officers; and it is confidently believed that work along this line can be continued and be of great value to the school. The work has been materially aided by graduates of the school, who are holding responsible positions in the merchant and government services. It is hoped that the efforts made in this direction will prove mutually beneficial to the steamship lines and to the graduates of the school. The commissioners are glad to state that a spirit of hearty co-operation has been shown by every one who has been enlisted in this work, and they desire to extend their thanks to all who have so generously aided them.

#### THE SUMMER TERM.

The annual spring inspection of the school by the Governor and Council took place on Wednesday, May 19, the following being present: His Excellency Eben S. Draper, Lieutenant-Governor Louis A. Frothingham, Hon. Albion F. Bemis, Hon. Charles O. Brightman, Hon. A. H. Goetting, Hon. Walter H. Glidden, Hon. Samuel Cole, Hon. J. Lovell Johnson, Hon. Edward P. Barry and the Executive Secretary Edward F. Hamlin.

The "Ranger" sailed from Boston on June 7 with a full complement of 101 cadets on board, Commander Low being authorized to visit the following ports: Horta, Gravesend, Copenhagen, Stockholm, Amsterdam, Antwerp, Gibraltar, Villefranche, Genoa, Funchal and Bermuda. Marked attention was paid the school by the officials in many of the ports visited. Under date of July 12 the superintendent submitted a report of a reception tendered on July 8 by the United States Ambassador and Mrs. Reid at Dorchester House, London, to the officers and cadets of the training ship. The reception was a pleasant one in every respect; the appearance and bearing of the cadets were the subject of favorable comment. This incident of the cruise of 1909, being an unexpected courtesy and an unusual honor, was a source of gratification and encourage-

ment to the Board, upholding abroad the dignity and importance of the school. The kind interest shown by Ambassador and Mrs. Reid in the school was thoroughly appreciated by the cadets and officers.

In 1908 the "Ranger" left Madeira November 7, and arrived at Bermuda November 20. Time, 13 days; distance made good, 2,654 miles; coal consumption, 243.3 tons. On this passage the fire and engine room force of the "Ranger" were enlisted men of the United States Navy. In 1909 the "Ranger" left Madeira October 6, and arrived at Bermuda October 19. Time, 13 days; distance made good, 2,764 miles; coal consumption, 168.7 tons. On this passage the fire and engine room force of the "Ranger" were cadets of the Massachusetts Nautical Training School.

Annexed to this report is a chart showing the route of the training ship during the cruise, upon which each day's run has been plotted.

The report of Comdr. William F. Low, U. S. N., superintendent of the school, on the annual cruise is as follows:—

The cadets were taken on board May 24, and on the following day the ship left Boston for Provincetown.

A week was spent at Provincetown in drilling and stationing the cadets, and the ship returned to Boston June 1, and left for Horta on her cruise the 7th of June. An itinerary of the cruise is enclosed, with dates of departure and arrival at each port and days in port and at sea.

This cruise has been in many respects the most satisfactory that the ship has made. The drills and instructions were carried out with persistency and regularity. It must be remembered that no cruise was made last year, and consequently this was the first sea going for most of the boys. *The ship has completed a journey of 13,000 miles without a mishap.*

On deck, the cadets have conned and steered the ship and handled the yards and sails; below, they have performed the duties of engineers, firemen, water tenders and oilers.

After the ship had been to sea a few weeks the four seamen that composed our ship's company were taken off watch, so that under the supervision of the officers, the entire ship's work was in the hands of the boys.

That they have made such an excellent record speaks highly of the ability and adaptability of the boys at this school.



## SEAMANSHIP.

The first half of the cruise was almost entirely devoted to the work of making the cadets familiar with the ship and everything pertaining thereto. This required more time this year than ever before perhaps, for two reasons. First, the school having obtained a new ship, with which both the officers and crew were unfamiliar; second, as the "Enterprise" did not make a cruise the summer before all the cadets were inexperienced as to all the purposes and requirements of work and life at sea. Thus all had to start from the beginning.

While at sea the cadets were divided into and stood quarter watches, instead of watch and watch, as usual, in order to gain all possible time during the day. Under the arrangement of quarter watches only one-fourth of the cadets were on watch during the night, and all of the cadets were on deck from 8 A.M. until 8 P.M., and available for studies and instructions.

The instruction consisted, for the senior cadets, in learning the parts of the ship, boats, and the rigging and everything connected with it; for the junior cadets, instructions on the jackstay, compass and the sails. While at the commencement of the cruise the seamen had to do the steering, the senior cadets soon learned that part, so that with the exception of the first couple of weeks of the cruise the cadets steered the ship, and worked her in all respects, as standing quartermaster watches, handling the sails, etc. Thus at sea all the time was taken up in the practical working of the ship. In port, during the forenoon the drills and exercises consisted in seamanship and sail drill, while the afternoon was devoted to boat drill, — handling boats under oars and sail.

## NAVIGATION.

This work, with the exception of the junior cadets, was mostly practical.

The junior cadets were instructed in the elements of dead reckoning and the boxing of the compass.

The senior cadets were given practical work in the following subjects: dead reckoning, course and distance by middle latitude and Mercator's sailing, taking departure, setting courses, plotting positions, latitude and longitude by observation, Sumner lines, azimuths, comparing chronometers, use of charts, sailing directions, tide tables, light lists, and use and adjustment of instruments.

While at sea, cadets having the afternoon watch below were mustered at studies from 1.30 to 3.30 P.M. daily, except Saturdays and Sundays.

The senior cadets, having the afternoon watch below, were required to turn in the following work: noon position by dead reckoning and observation, course and distance made good since preceding noon, set and drift of current during preceding day, the compass error and devia-

tion on at least one heading, and such other problems as were assigned. Sights were taken separately, and every effort was made to have each cadet work independently.

#### MARINE ENGINEERING.

The cadets received practical instruction as follows:—

*Senior Cadets.*—Steam heating and water systems, and pipe leads generally; emergencies, low water, priming, pumps failing to work, breakdowns of main and auxiliary machinery; care of evaporators and distillers, inspection of boilers, operation and repairs of pumps, care of boilers and engines while getting up steam, getting under way, running and coming to anchor after a run, general duties required in fire and engine rooms, firing and water tending, care and operation of electric machines.

*Junior Cadets.*—Coal passing, firing, cleaning boilers, instruction in the leads and use of pipes and valves, the names and uses of boiler attachments and pumps.

#### COAL REPORT.

The following is the coal report from May 20 to October 28, cruise of 1909:—

Expended as follows:—		Total.
Galley,		34.1
Distilling,		59.9
Heating,		11.3
Dynamo and other auxiliaries,		240.2
Steam launch,		1.8
Moving ship,		695.8
Total,		1,052.1

#### MEDICAL DEPARTMENT.

The health of the cadets has been exceptionally good. There have been no serious accidents. At the beginning of the cruise all the cadets were vaccinated, 15 per cent. taking. The fact that distilled water is used on the ship, and that the boys were warned against drinking water or milk ashore in ports where the sanitary conditions were not good, probably accounts for the absence of typhoid and dysentery.

The air space between decks has been sufficient for the cadets and crew, and the sick bay is especially well ventilated.

The following table shows gains made:—



	May.	October.	Gain.
Weight, . . . . .	133.28 lbs.	140.35 lbs.	7.07 lbs.
Height, . . . . .	5 ft., 7.85 in.	5 ft., 8 in.	.15 in.
Chest, . . . . .	32.15 in.	32.75 in.	.6 in.
Chest expansion, . . . . .	34.30 in.	35.45 in.	1.15 in.
Arm, . . . . .	11.25 in.	11.50 in.	.25 in.
Abdomen, . . . . .	29.75 in.	30.25 in.	.5 in.
Leg (calf), . . . . .	12.75 in.	13.00 in.	.25 in.

Course of instruction in first aid to injured, including how to act in presence of emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat, unconsciousness, fainting, shocks, compression, sunstroke, starving, drunkenness, convulsions, smothering by gas, hanging, drowning, poison, dog, snake or insect bites, and poison ivy; making of dressings and poultices.

*Itinerary of the U. S. S. "Ranger," Cruise of 1909.*

May 24, cadets reported; May 25, Boston to Provincetown; May 31, Provincetown to Plymouth; June 1, Plymouth to Boston.

PORTS.	Left.	Arrived.	Days in Port.	Days at Sea.	Distance (Miles).
Boston-Horta, . . . . .	June 7,	June 20,	—	14	1,933
Horta-Gravesend, . . . . .	June 23,	July 1,	3	8	1,470
Gravesend-Copenhagen, . . . . .	July 13,	July 18,	12	5	698
Copenhagen-Stockholm, . . . . .	July 26,	July 28,	8	2	413
Stockholm-Amsterdam, . . . . .	Aug. 2,	Aug. 6,	5	5	788
Amsterdam-Antwerp, . . . . .	Aug. 15,	Aug. 16,	9	1	150
Antwerp-Gibraltar, . . . . .	Aug. 21,	Aug. 28,	5	7	1,427
Gibraltar-Villefranche, . . . . .	Sept. 2,	Sept. 6,	5	5	802
Villefranche-Genoa, . . . . .	Sept. 16,	Sept. 17,	10	1	97
Genoa-Gibraltar, . . . . .	Sept. 23,	Sept. 27,	6	4	885
Gibraltar-Funchal, . . . . .	Sept. 30,	Oct. 3,	3	3	612
Funchal-Bermuda, . . . . .	Oct. 6,	Oct. 19,	3	13	2,784
Bermuda-Marblehead, . . . . .	Oct. 23,	Oct. 27,	4	4	707
Marblehead-Boston, . . . . .	Oct. 28,	Oct. 28,	1	1	18
			74	73	12,784

The total expenditures on the cruise were \$9,612.13.

## THE WINTER TERM.

The "Ranger" arrived home on Wednesday, October 27, completing a successful summer cruise of five months and two days, and covering a distance of about 13,000 miles. The autumn inspection of the school took place on October 28; the commissioners were accompanied by Hon. Albion F. Bemis, Hon. Charles O. Brightman, Hon. Seward W. Jones and Hon. Daniel W. Denny.

The ship is berthed in the usual place at the North End Park, Boston, where she will remain during the winter term. On account of making necessary alterations and improvements, the commissioners found it necessary to prolong the autumn vacation two weeks, the cadets reporting on board the ship on Monday, December 20.

Persons interested in the work of the school are cordially invited to visit and inspect the "Ranger" on any day excepting Saturday and Sunday, when the cadets are absent on home leave. Visitors will receive every attention, and the objects and advantages of the school will be fully explained by the officers.

The following are the officers and instructors now connected with the school: Comdr. William F. Low, U. S. N., superintendent and commanding officer; Boatswain John Danner, U. S. N., executive officer; Warrant Machinist John O'Neill, U. S. N., chief engineer; A. Russell Cushing, navigating officer; Boatswain Albert Seeckts, U. S. N., watch officer; Dr. Edmund L. Saunders, medical officer; Edward S. Groves, paymaster and captain's clerk; G. H. Scott, instructor in mathematics.

## PERSONNEL.

July 1, 1909, Rear Admiral George F. F. Wilde, U. S. N., of North Easton was reappointed a commissioner for three years.

April 21, 1909, Chief Boatswain John McGrath, U. S. N., resigned as watch officer.

April 21, 1909, Boatswain Albert Seeckts, U. S. N., was appointed watch officer and instructor.

Dec. 1, 1909, the official title of Edward S. Groves was changed from captain's clerk and commissary yeoman to paymaster and captain's clerk.

Dec. 20, 1909, G. H. Scott was appointed instructor in mathematics.

#### WORK OF THE GRADUATES.

The graduates of the school are making good progress in their profession, as will be seen by a study of the register of the graduates. It is stated that about 30 per cent. of the officers of the American-Hawaiian line are graduates of nautical schools.

James S. Howes, of the class of 1900, is captain of the Merchants' and Miners' Transportation Company's steamer "New Orleans." Lieut. Philip W. Lauriat, United States revenue cutter service, of the class of 1895, while recently in temporary command of the "Androscoggin," picked up a dangerous derelict off Cape Sable, after a search of three days, and towed the vessel into Yarmouth. Hollis M. Cornwall, of the class of 1900, is chief engineer of the steamship "Persian." Forrest D. Clark, class of 1899, is chief engineer of the S. S. "Harvard." James A. Reardon, who was a member of the first class to enter the school, in 1893, has been on shore only three months since leaving the school; he has voyaged around the world four times and has sailed around Cape Horn seven times. George E. Eaton, class of 1895, is captain of the United States lighthouse tender "Azalea." A. T. Luther, class of 1902, is captain of a government vessel operated by the Panama Canal Commission. Frederick A. Sparks, class of 1897, is captain of the steam yacht "Machigonne." James H. B. Meehan, class of 1896, is chief engineer of the naval auxiliary vessel "Nero." Charles E. Rowe, class of 1898, is chief engineer of the naval collier "Marcellus." John C. Ganser, class of 1898, is chief engineer of the sea-going suction dredge "Caribbean," Panama Canal. Charles E. Lowe, class of 1900, is chief engineer of the S. S. "Mackinaw." Elmer P. Butterworth, class of 1900, is chief engineer of the S. S. "J. M. Guffey."

The following graduates are officers in the United States revenue cutter service: —

Philip W. Lauriat, First Lieutenant,	“Gresham.”
James A. Alger, Second Lieutenant,	“Seneca.”
John F. McGourty, Second Lieutenant,	“Mohawk.”
William F. Towle, Second Lieutenant,	“Seneca.”
Lorenzo C. Farwell, Second Lieutenant of Engineers,	“Forward.”
Joseph E. Sheedy, Second Lieutenant of Engineers,	“Thetis.”
Albert F. Patterson, Second Lieutenant of Engineers,	“Woodbury.”
John T. Carr, Second Lieutenant of Engineers,	“Snohomish.”
Webb C. Maglathlin, Second Lieutenant of Engineers,	“Perry.”
Henry C. Roach, Third Lieutenant of Engineers,	“Androscoggin.”

The apprentice system is now practically a thing of the past, and young men who desire to acquire a knowledge of seamanship and navigation have recourse to the nautical training school. Young men of good character and average intelligence, possessed of a rugged physique, and a real love for the sea, will find the American merchant marine an inviting field of service. The United States possesses a magnificent fleet of coastwise vessels on the Atlantic and Pacific coasts. It is generally believed that the next great advance which this country makes along lines of commercial activity will be in the revival of the merchant marine. The probability of an enlarged foreign-going merchant marine in the near future should not be overlooked by those thinking of entering upon a seafaring career. There is a strong demand for the rehabilitation of American shipping, and if the past and present agitation of this subject results in increasing the number of ships, there will be good opportunities for rapid advancement.

The object of the Massachusetts Nautical Training School is to give young men of the State who desire to follow a seafaring career a good foundation upon which to build and advance to the highest positions in the merchant marine. The course of study occupies two years, and the curriculum includes — besides the professional studies of seamanship, navigation, marine engineering and electricity — arithmetic, Algebra, English and geography. Combined with the technical education, the cadets receive an excellent physical training, and the exceptional experience of the summer cruise broadens the view and develops the character. The course of study and the practical work appeal to an earnest, active and ambitious boy.



Good wholesome food and an abundance of fresh air make the life of an officer at sea especially healthy and desirable.

The following is an abstract from the register of graduates: —

Graduated.	Name.	Residence.	Position.	Vessel.
1895	George E. Eaton, . .	Wakefield, .	Captain, .	"Azalea."
1897	Fred'k A. Sparks, . .	Provincetown, .	Captain, .	"Machigonne."
1896	Joseph W. McGrath, <sup>1</sup> .	Quincy, .	Captain, .	"Discovery."
1900	James S. Howes, . .	Woods Hole, .	Captain, .	"New Orleans."
1902	A. T. Luther, . .	Swansea, .	Captain, .	Government vessel, Panama Canal.
1901	Theodore H. Bicknell, .	Melrose, .	Captain, .	"Tarantula."
1895	George F. Wait, . .	Winthrop, .	First officer, .	"Quantico."
1897	Emery Rice, . .	Brighton, .	First officer, .	"Manchuria."
1903	Leander A. Clapp, . .	Brockton, .	First officer, .	"Ajax."
1898	Carl E. A. Anderson, .	Roslindale, .	First officer, .	"Arizonan."
1897	Willis Howes, . .	S. Yarmouth, .	First officer, .	"Wright."
1896	Alvin W. Haynes, . .	Somerville, .	First officer, .	"Panama."
1896	George R. Lauriat, . .	Medford, .	First officer, .	"James Henry."
1903	Benjamin O'Connell, .	Peabody, .	First officer, .	"Colon."
1902	Wm. I. O'Reilly, . .	S. Boston, .	First officer, .	"Queen."
1902	Herman T. Parker, . .	Rockport, .	First officer, .	"Parthian."
1900	E. Newton Parker, . .	Greenfield, .	First officer, .	"Nero."
1895	James E. Reardon, . .	Boston, .	First officer, .	"Windber."
1895	Albert L. Warner, . .	Waverley, .	First officer, .	"Eleazer W. Clark."
1899	Edward G. Smith, . .	Boston, .	First officer, .	"Coya."
1901	Robert W. Tucker, . .	Kendal Green, .	First officer, .	"Ohio."
1898	Louis E. Congdon, . .	Boston, .	First officer, .	"Lampasas."
1901	Charles D. Harrington, .	Cambridge, .	First officer, .	"H. M. Plant."
1896	Henry R. Bodge, . .	Newton Centre, .	First officer, .	"Chiyo Maru."
1898	Harlowe Johnson, . .	Mattapoisett, .	First officer, .	"Parthian."
1898	Eldon G. Freeman, . .	Whitman, .	First officer, .	"Sequoia."
1900	Walter Andrew, . .	Jamaica Plain, .	Second officer, .	"Ligonier."
1897	H. W. G. Atkins, . .	Holliston, .	Second officer, .	"Adansi."
1899	Walter S. Lynch, . .	Chelsea, .	Second officer, .	"Liberty."
1900	Alfred M. Cummings, .	Worcester, .	Second officer, .	"Ajax."
1902	Edwin J. Madden, . .	Everett, .	Second officer, .	"St. Louis."
1902	Fred C. Seibert, . .	Greenfield, .	Second officer, .	"Iris."
1903	Mark Woodbury, . .	Townsend, .	Second officer, .	"City of Memphis."
1904	Edward C. Roberts, . .	Beverly, .	Second officer, .	"Windber."

<sup>1</sup> Deceased.



Graduated.	Name.	Residence.	Position.	Vessel.
1904	Leslie F. Holmes.	E. Whitman.	Second officer.	"Antilles."
1905	Fred'k S. Walker.	Dorchester.	Second officer.	"Azalea."
1897	Charles W. Clift.	Whitman.	Second officer.	"McClellan."
1897	Leonard F. Cox, <sup>1</sup>	Whitman.	Second officer.	"Alexander."
1897	Fred'k W. Jones.	Hubbardston.	Second officer.	"Col. Drake."
1898	Charles H. Kilmer.	Somerville.	Second officer.	"Leonidas."
1902	Osborn E. McKay.	Provincetown.	Second officer.	"Lebanon."
1902	Harry E. Boesch.	Wakefield.	Second officer.	"Momus."
1903	Andrew B. Chase, Jr.	New Bedford.	Second officer.	"Wm. L. Walker"
1905	James A. Crocker.	Nahant.	Second officer.	"Alleghany."
1905	Harry M. Maynard.	Winthrop.	Second officer.	"Mayflower."
1899	Adam M. Queen, <sup>1</sup>	Hyde Park.	Second officer.	"Howard."
1908	Eugene P. Shevlin.	E. Boston.	Second officer.	"Azalea."
1907	Walter G. Smith.	Ashburnham.	Second officer.	"Wilhelmina."
1897	Mina Dailey.	Rockport.	Second officer.	"Arthur Sewall."
1902	William M. Chisholm.	N. Attleboro'.	Second officer.	- -
1903	Harry M. Bostwick.	Northbridge.	Third officer.	"Abarenda."
1904	John F. Williamson.	Brockton.	Third officer.	"Iris."
1902	F. J. Butterfield.	Haverhill.	Third officer.	Army Transport.
1896	Harry M. Davie, <sup>1</sup>	Boston.	Third officer.	"Thomas."
1900	William B. Knight.	Hull.	Third officer.	"City of Seattle."
1903	Harold C. Rideout.	Concord.	Third officer.	"El Alba."
1900	Joseph E. Gately.	Marlborough.	Fourth officer.	"St. Paul."
1902	A. Russell Cushing.	Dorchester.	Navigation officer.	"Ranger."
1900	I. Clarence Bailey.	Kingston.	Boat keeper.	"American" No. 1.
1895	Philip W. Lauriat.	Medford.	1st Lieut., U. S. R. C. S.	"Gresham."
1899	James A. Alger.	Reading.	2d Lieut., U. S. R. C. S.	"Seneca."
1900	John F. McGourty.	Worcester.	2d Lieut., U. S. R. C. S.	"Mohawk."
1906	William F. Towle.	Boston.	2d Lieut., U. S. R. C. S.	"Seneca."
1898	Franklin B. Harwood.	Rockport.	3d Lieut., U. S. R. C. S.	"Bear."
1898	Clarence E. Wood.	Fall River.	Ensign.	U. S. S. "Virginia."
1894	William H. Boardman, <sup>1</sup>	Lawrence.	Midshipman.	U. S. Navy.
1907	Thomas Baxter.	S. Dennis.	Midshipman.	U. S. Navy.
1900	Gershom Bradford.	Duxbury.	Nautical expert.	Navy department.
1895	George A. Collie.	Worcester.	Nautical expert.	Navy department.
1897	Arthur W. Morey.	Greenfield.	Nautical expert.	Navy department.
1896	Charles S. Young.	Boston.	Nautical expert.	Navy department.
1899	Forrest D. Clark.	Dorchester.	Chief engineer.	"Harvard."
1900	Hollis M. Cornwall.	Melrose.	Chief engineer.	"Persian."

Graduated.	Name.	Residence.	Position.	Vessel.
1896	Jas. H. B. Meehan, .	Lowell, .	Chief engineer, .	"Nero."
1902	Daniel F. Butler, .	N. Easton, .	Chief engineer, .	"Gloria."
1900	William Glover, .	Wilmington, .	Chief engineer, .	"Iris."
1900	Norris R. Sibley, .	Worcester, .	Chief engineer, .	"Frances Hyde."
1895	Charles H. Lincoln, .	Gloucester, .	Chief engineer, .	"Aztec."
1900	Charles E. Lowe, .	Roxbury, .	Chief engineer, .	"Mackinaw."
1900	Elmer P. Butterworth, .	Foxborough, .	Chief engineer, .	"J. M. Guffey."
1898	Charles E. Rowe, .	Lynn, .	Chief engineer, .	"Marcellus."
1901	Eugene I. K. Murphy, .	Worcester, .	Chief engineer, .	Government vessel, Panama Canal.
1898	John C. Ganser, .	Jamaica Plain, .	Chief engineer, .	"Caribbean."
1898	Everett S. Ransom, .	Mattapoisett, .	Chief engineer, .	"Parthenia."
1895	Frank A. Berry, .	Watertown, .	Chief engineer, .	- -
1899	Frank B. Davis, .	Dorchester, .	First engineer, .	"Olivette."
1897	Augustus T. Holmes, .	Ipswich, .	First engineer, .	"J. M. Guffey."
1898	Frank P. Killion, .	Malden, .	First engineer, .	"Helene."
1901	Robt. A. Patterson, .	Brighton, .	First engineer, .	"Ajax."
1904	Charles W. Bumpus, .	Wakefield, .	First engineer, .	"Cape Ann."
1898	Wilbur S. Lamont, .	Leominster, .	First engineer, .	"Pocomoke."
1900	J. J. Donahoe, .	Cambridge, .	First engineer, .	"Oregon."
1905	Walter C. Lockhart, .	Wakefield, .	First engineer, .	"Caesar."
1896	Forrest H. McIntyre, .	Gloucester, .	First engineer, .	"Daniel Millard."
1900	James F. Rawdon, .	Worcester, .	First engineer, .	"Tuscan."
1895	Michael D. Sullivan, .	Boston, .	First engineer, .	"Enterprise."
1897	P. W. Kimpton, .	Somerville, .	Second engineer, .	"Shawmut."
1903	James S. McGarry, .	Shrewsbury, .	Second engineer, .	"El Paso."
1895	F. H. Stackpole, .	Hyde Park, .	Second engineer, .	"City of Brockton."
1898	Arthur P. Stevens, .	Nantucket, .	Second engineer, .	"Ponce."
1900	Ressie E. Bowser, .	N. Abington, .	Second engineer, .	"Nero."
1902	Augustus W. Hart, .	N. Truro, .	Second engineer, .	"Chippewa."
1902	Ernest L. Saunders, .	Brockton, .	Second engineer, .	"Hector."
1900	Earle P. Marshall, .	N. Easton, .	Second engineer, .	"Uruguay."
1901	David W. Warren, .	Boston, .	Second engineer, .	"Melrose."
1904	Cecil L. McIntyre, .	Upton, .	Second engineer, .	"Carib."
1896	James O. Sargent, .	Worcester, .	Second engineer, .	"St. Louis."
1903	Rudolph Komenda, .	Somerville, .	Third engineer, .	"Hannibal."
1905	Thomas W. Chisholm, .	N. Billerica, .	Third engineer, .	"Abarenda."
1906	John C. Sheedy, .	Malden, .	Third engineer, .	"Admiral Schley."
1906	A. C. Caldwell, .	Dorchester, .	Third engineer, .	"Brutus."
1906	Bradford N. A. Gladding, .	New Bedford, .	Third engineer, .	"Massachusetts."

Grad- uated	Name	Residence	Position	Vessel
1901	Henry A. Magallan.	W. Bridgewater.	Third engineer.	"Thetis."
1906	Vernor W. Fowler.	East Boston.	Asst. engineer.	"Isabella."
1906	Michael J. Telford.	Woburn.	Asst. engineer.	Light vessel No. 90
1906	Arthur G. Burbank.	Cumtux.	Asst. engineer.	Light vessel
1906	Charles E. Brown, Jr.	Dorchester.	Asst. engineer.	-
1906	David B. Driver.	Weymouth.	Asst. engineer.	-
1906	Alfred E. Collins.	Aqueduct.	Engineer.	"Aldis."
1907	Edward J. Capen.	Lynn.	Engineer.	"Carmela."
1906	William Greenville.	Gloversville.	Engineer.	"Dismal."
1906	Edward A. Mann.	Dorchester.	Engineer.	"Andromeda."
1907	Philip B. Barry.	Boston.	Engineer.	"Mikawuk."
1906	Joseph E. Steady.	Reading.	2d Lieut. Eng. U. S. E. C. S.	"Thetis."
1907	Lummas C. Farrell.	Dorchester.	2d Lieut. Eng. U. S. E. C. S.	"Forward."
1907	Albert F. Putnam.	Townsend.	2d Lieut. Eng. U. S. E. C. S.	"Woodbury."
1906	John T. Carr.	Malden.	2d Lieut. Eng. U. S. E. C. S.	"Andromeda."
1906	Walter C. Magallan.	Bridgewater.	2d Lieut. Eng. U. S. E. C. S.	"Perry."
1906	Henry C. Rusk.	New Bedford.	2d Lieut. Eng. U. S. E. C. S.	"Andromeda."
1905	Edward F. Corrigan.	S. Boston.	Chief machinist.	"St. Paul."
1906	Robert E. Fish.	Mattapoisett.	Warrack machinist.	E. & S. Barry
1906	H. E. Kendall.	Lawrence.	Warrack machinist.	E. & S. Barry
1906	C. Allen Bolbrook.	Mattapoisett.	Machinist.	"Idaho."
1905	E. B. Gaylord.	Boston.	Machinist.	"Newark."
1905	Fred G. Gifford.	Maryland.	Machinist.	"New Jersey."
1904	C. George Drown.	Boston.	Electrician.	"Georgia."
1904	Joseph G. Whipple.	Lynn.	Electrician.	"Black Island."
1905	Lawrence H. Kelley.	Taunton.	Electrician.	"Illinois."
1905	John F. Kennedy.	S. Boston.	Electrician.	"Vermont."
1905	Charles F. Tarr.	Taunton.	Electrician.	"Quincy."
1906	Carroll L. Wright.	Beverly.	Electrician.	"Connecticut."
1906	Lucia H. Houghton.	Worcester.	Electrician.	"Maine."
1906	William R. Dill.	Worcester.	Electrician.	"Delaware."
1907	Eugene E. Chaney.	Arlington.	Electrician.	"Taconic."
1907	Lucia L. LaMontagne.	Miller's Falls.	Electrician.	"Vigra."
1907	Howard F. Dow.	Lynn.	Electrician.	"Enterprise."
1902	Fred E. Garland.	Randolph.	Electrician.	"Alabama."
1906	Fredrick W. Farguhar.	Lawrence.	Electrician.	"New."
1904	Charles A. Hill.	Malden.	Electrician.	"Bay State."
1903	Guy H. Hudson.	Somerville.	Electrician.	"Alabama."
1902	John F. Murphy.	Worcester.	Electrician.	"Viper."

## CADETS ADMITTED, GRADUATED, AND HONORABLY DISCHARGED, FROM 1893 TO 1909 INCLUSIVE.

	ADMITTED.			GRADUATED.			HONORABLY DISCHARGED.			Withdrawn, dismissed, dropped, transferred.
	Sea- manship Class.	Engineer Class.	Totals.	Sea- manship Class.	Engineer Class.	Totals.	Sea- manship Class.	Engineer Class.	Totals.	
1893,	138	—	138	—	—	—	29	—	29	24
1894,	42	21	63	—	—	—	26	17	43	18
1895,	33	38	71	19	19	38	6	6	12	6
1896,	35	39	74	20	17	37	16	15	31	17
1897,	32	41	73	20	21	41	10	10	20	9
1898,	42	57	99	15	25	40	12	14	26	23
1899,	34	45	79	11	12	23	24	17	41	11
1900,	28	50	78	14	36	50	9	12	21	14
1901,	34	37	71	11	18	29	8	12	20	16
1902,	32	58	90	16	22	38	16	18	34	13
1903,	34	32	66	17	14	31	10	15	25	17
1904, <sup>1</sup>	—	—	60	16	29	45	5	12	17	31
1905, <sup>1</sup>	—	—	65	10	10	20	—	—	9	13
1906, <sup>1</sup>	—	—	50	16	19	35	—	—	18	19
1907, <sup>1</sup>	—	—	60	10	15	25	—	—	17	26
1908, <sup>1</sup>	—	—	45	8	9	17	—	—	9	9
1909, <sup>1</sup>	—	—	81	14	22	36	—	—	7	16
	—	—	1,263	217	288	505	—	—	379	282

<sup>1</sup> Beginning in 1904, the cadets upon entrance are unclassified until their second year.



## STATISTICS OF CADETS.

*Cadets admitted during the Year 1909.*

Number of cadets in the school Jan. 1, 1909:—			
Seamanship class, . . . . .		14	75
Engineer class, . . . . .		22	
Nautical cadets, . . . . .		39	
Total, . . . . .			
Applications received, 1909, . . . . .		115	92
Applicants examined, . . . . .	92		
Failed to appear for examination, . . . . .	14		
Awaiting examination, . . . . .	7		
Unsatisfactory recommendations, . . . . .	2		
Examined, . . . . .		92	
Failed to pass mental examination, . . . . .	35		
Failed to pass physical examination, . . . . .	3		
Failed mentally and physically, . . . . .	3		
Passed examinations, . . . . .	51		
Passed examinations, . . . . .	51		
Re-examined mentally and passed, . . . . .	28		
Re-examined mentally and physically and passed, . . . . .	1		
Re-examined physically and passed, . . . . .	2		
Readmitted, . . . . .	1		
	83		81
Failed to qualify after passing examinations, . . . . .	2		
	81		
Total number admitted to school during 1909, . . . . .		81	156
Total number connected with school during 1909, . . . . .			

*Cadets withdrawn during the Year 1909.*

Total number graduated, . . . . .		36	59
Seamanship class, . . . . .	14		
Engineer class, . . . . .	22		
Total number honorably discharged, . . . . .		7	
Total number graduated and honorably discharged, . . . . .		43	
Dropped from roll, . . . . .	6		
Withdrawn, . . . . .	9		
Died, . . . . .	1		
Total number dropped, . . . . .		16	
Total withdrawals during 1909, . . . . .			
Number of cadets in the school Jan. 1, 1910, . . . . .		97	
Seamanship class, . . . . .	10		
Engineer class, . . . . .	17		
Nautical cadets, . . . . .	70		



## MEMBERSHIP OF THE SCHOOL.

*Graduating Class, March, 1909.*

Bear, John R.,	Winthrop.
Cooper, Harold C.,	Malden.
Connelly, John J.,	Stony Brook.
Grimshaw, Seabrook P.,	New Bedford.
Henry, Richard K.,	Pittsfield.
Hart, Leslie S.,	Lynn.
Jones, Louis F.,	Brockton.
Kelley, Ervin L.,	Cambridge.
Morse, Arthur A.,	Lynn.
O'Keeffe, John D.,	North Easton.
Perry, Edgar A.,	Boston.
Ross, Harold E.,	Amesbury.
Sillars, William A.,	Danvers.
Sylvia, Frederick H. H.,	Nantucket.
Wilson, Leland S.,	Beverly.
Winqvist, Eric E.,	Jamaica Plain.
Ward, Everett B.,	Lynn.

*Graduating Class, October, 1909.*

Collins, George H.,	Needham.
Caddigan, William E.,	Allston.
Doyle, William H.,	Malden.
Gill, Maurice D.,	North Eastham.
Habersham, Stanton,	Chilmark.
Higgins, Carroll E.,	Somerville.
Hines, Robert F.,	East Boston.
Hamilton, Woodbury R.,	Dorchester.
Kebler, Fritz T.,	Rochdale.
Keating, Leo A.,	Natick.
Miller, Samuel J.,	Fall River.
McCann, Charles A.,	Worcester.
Manchester, William A.,	Brockton.
Smith, Alexander F.,	Nantucket.
Sparrow, Robert S.,	Eastham.
Sullivan, William A.,	East Boston.
Van Deusen, Jr., John F.,	Pittsfield.
Wiggin, William H.,	Brookline.

*Class to graduate April, 1910.*

Badger, Leslie S.,	Wakefield.
Griswold, George F.,	Watertown.
Hoyle, Harold P.,	Millbury.
Lewis, Charles R.,	Dorchester.

Loundes, Howell S.,	.	.	.	.	.	Worcester.
McCarthy, Frank J.,	.	.	.	.	.	Boston.
Tumey, Charles H.,	.	.	.	.	.	Southbridge.
Wiley, Frederick B.,	.	.	.	.	.	Wakefield.
Wyatt, Ernest B.,	.	.	.	.	.	Wakefield.

*Class to graduate October, 1910.*

Anderson, R. Wilbur,	.	.	.	.	.	Roslindale.
Barnes, John W.,	.	.	.	.	.	Dorchester.
Barris, Edward R.,	.	.	.	.	.	Lowell.
Bowen, William,	.	.	.	.	.	Cambridge.
Case, Paul,	.	.	.	.	.	Brockton.
Cobb, Otis W.,	.	.	.	.	.	Wellesley Hills.
Gage, Clinton H.,	.	.	.	.	.	Hull.
Grover, Harold C.,	.	.	.	.	.	Stoneham.
Hutchinson, Chas. S.,	.	.	.	.	.	Peabody.
MacKenzie, William H.,	.	.	.	.	.	Boston.
McMillen, Fredric,	.	.	.	.	.	Billerica.
Morris, Chester E.,	.	.	.	.	.	Springfield.
Older, Archibald W.,	.	.	.	.	.	Winthrop.
Sibley, George W.,	.	.	.	.	.	Worcester.
Stevenson, Eugene F.,	.	.	.	.	.	Spencer.
Sullivan, Russell H.,	.	.	.	.	.	Westfield.
Tewksbury, Allan W.,	.	.	.	.	.	Winthrop.
Tyler, Franklin K.,	.	.	.	.	.	Beachmont.

*Class to graduate, April, 1911.*

Aicardi, Angelo A.,	.	.	.	.	.	South Boston.
Bailey, Clifford,	.	.	.	.	.	Ludlow.
Barretto, William A.,	.	.	.	.	.	East Boston.
Bartlett, Jr., William M.,	.	.	.	.	.	Nantucket.
Bouthillier-Chavigny Guy, de,	.	.	.	.	.	Arlington Heights.
Coakley, Patrick S.,	.	.	.	.	.	Malden.
Crofwell, Jr., Thomas F.,	.	.	.	.	.	Concord Junction.
Dean, Edward L.,	.	.	.	.	.	East Boston.
Dickens, William E.,	.	.	.	.	.	Roxbury.
Dexter, Harold S.,	.	.	.	.	.	Mattapoissett.
Downey, Frank L.,	.	.	.	.	.	North Easton.
Ela, Norris T.,	.	.	.	.	.	East Douglas.
Fulton, David J.,	.	.	.	.	.	Wollaston.
Foque, Edwin N.,	.	.	.	.	.	West Medford.
Gorham, William M.,	.	.	.	.	.	Winthrop.
Harrington, Luther E.,	.	.	.	.	.	Winthrop.
Hanson, Henry O. K.,	.	.	.	.	.	Neponset.
Holmes, Ermin F.,	.	.	.	.	.	Halifax.
Holmes, George T.,	.	.	.	.	.	Brockton.
Hill, Jerome W.,	.	.	.	.	.	Chicopee.

Kershaw, Jr., Robert M.,	.	.	.	.	.	Dorchester.
Langlands, Paul M.,	.	.	.	.	.	Melrose.
Leavitt, Harold S.,	.	.	.	.	.	Roxbury.
Lockhart, George L.,	.	.	.	.	.	Wakefield.
Lucy, Harry R.,	.	.	.	.	.	New Bedford.
Long, Albert W.,	.	.	.	.	.	Arlington.
Lynn, Walter P.,	.	.	.	.	.	Beverly.
Morgan, James H.,	.	.	.	.	.	Lawrence.
Ober, Henry W.,	.	.	.	.	.	Everett.
Perry, Winfield L.,	.	.	.	.	.	Brockton.
Plummer, Charles C.,	.	.	.	.	.	Cambridge.
Phinney, Robert F.,	.	.	.	.	.	Roslindale.
Price, Arthur H.,	.	.	.	.	.	Maynard.
Rich, Chester H.,	.	.	.	.	.	Roxbury.
Randlett, Harold S.,	.	.	.	.	.	Winchester.
Scheydecker, Emil,	.	.	.	.	.	Cohasset.
Turnbull, James D.,	.	.	.	.	.	Bridgewater.
Vose, Raymond C.,	.	.	.	.	.	Cambridge.
Wilder, Ralph S.,	.	.	.	.	.	Marlborough.
Whittemore, Roy G.,	.	.	.	.	.	Malden.
Ware, Jr., Albert L.,	.	.	.	.	.	Cambridge.

*Class to graduate, October, 1911.*

Allen, Walter C.,	.	.	.	.	.	Jamaica Plain.
Bailey, Alan N.,	.	.	.	.	.	Lawrence.
Blanchard, Walter H.,	.	.	.	.	.	Gloucester.
Boyer, Edward E. H.,	.	.	.	.	.	Lynn.
Bickerstaff, Charles B.,	.	.	.	.	.	Nantucket.
Besse, Wesley F.,	.	.	.	.	.	South Hanson.
Chandler, Walter H.,	.	.	.	.	.	North Billerica.
Chisholm, Joseph C.,	.	.	.	.	.	North Billerica.
Eddy, John C.,	.	.	.	.	.	Boston.
Ettinger, Horace G.,	.	.	.	.	.	Allerton.
Husband, Joseph A.,	.	.	.	.	.	Cambridge.
Hubbard, Guy R.,	.	.	.	.	.	Provincetown.
Johnson, George L. E.,	.	.	.	.	.	Worcester.
Lewis, Harry R.,	.	.	.	.	.	Oxford.
Lundergan, John P.,	.	.	.	.	.	Brockton.
MacLeod, Levi E.,	.	.	.	.	.	Gloucester.
Merithew, Ralph E.,	.	.	.	.	.	Haverhill.
Miller, Eugene W.,	.	.	.	.	.	East Saugus.
McArdle, Arthur,	.	.	.	.	.	Sandwich.
Marques, Alfred,	.	.	.	.	.	Charlestown.
Mendell, John D.,	.	.	.	.	.	Mattapoisett.
Routledge, Richard J.,	.	.	.	.	.	Waverley.
Russo, John A.,	.	.	.	.	.	Roxbury.
Rines, Maurice,	.	.	.	.	.	Cambridge.

Shaw, Frederic J.,	.	.	.	.	.	Cambridge.
Simpson, William O.,	.	.	.	.	.	Nantucket.
Sweetser, Daniel T.,	.	.	.	.	.	Haverhill.
Thorndike, Harvey M.,	.	.	.	.	.	Swampscott.
White, Samuel D.,	.	.	.	.	.	Hyannisport.

## APPROPRIATIONS.

The appropriations for the school for the fiscal year 1909, from Dec. 1, 1908, to Nov. 30, 1909, are here accounted for as follows:—

*Current Expenses.*

Appropriation,	.	.	.	.	.	.	\$58,000 00
Expended:—							
Pay roll,	.	.	.	.	.	.	\$26,897 83
Provisions,	.	.	.	.	.	.	13,371 95
Text-books, stationery and printing,	.	.	.	.	.	.	281 47
Seamanship department,	.	.	.	.	.	.	1,511 64
Engineering department,	.	.	.	.	.	.	9,131 51
Repairs,	.	.	.	.	.	.	3,756 07
Miscellaneous,	.	.	.	.	.	.	3,030 85
Total amount expended,	.	.	.	.	.	.	57,981 32
Balance unexpended,	.	.	.	.	.	.	\$18 68

*Office Expenses.*

Appropriation,	.	.	.	.	.	.	\$5,000 00
Expended:—							
Salaries,	.	.	.	.	.	.	\$2,283 29
Advertising,	.	.	.	.	.	.	760 34
Printing,	.	.	.	.	.	.	438 56
Commissioners' expenses,	.	.	.	.	.	.	271 20
Stationery and postage,	.	.	.	.	.	.	342 65
Filing cabinets and typewriter,	.	.	.	.	.	.	226 40
Miscellaneous,	.	.	.	.	.	.	474 32
Total amount expended,	.	.	.	.	.	.	4,796 76
Balance unexpended,	.	.	.	.	.	.	\$203 24

Respectfully submitted,

GEORGE F. F. WILDE,

REAR ADMIRAL, U. S. N. (RETIRED).

HON. JOHN READ, LATE U. S. N.

WILLIAM E. MCKAY.

## LEGAL AUTHORITY FOR THE SCHOOL.

### AUTHORITY OF THE UNITED STATES.

CHAPTER 339, JUNE 20, 1874.

#### AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine engineering and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

### AUTHORITY OF THE STATE OF MASSACHUSETTS.

CHAPTER 45, REVISED LAWS, AS AMENDED BY CHAPTER 171, ACTS OF 1903.

#### THE NAUTICAL TRAINING SCHOOL.

SECTION 1. There shall be a board of commissioners of the Massachusetts nautical training school consisting of three citizens of the commonwealth, one of whom shall annually, before the first



day of July, be appointed by the governor, with the advice and consent of the council, for a term of three years from said first day of July.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed by the commonwealth for all expenses actually incurred by them in the performance of their official duties.

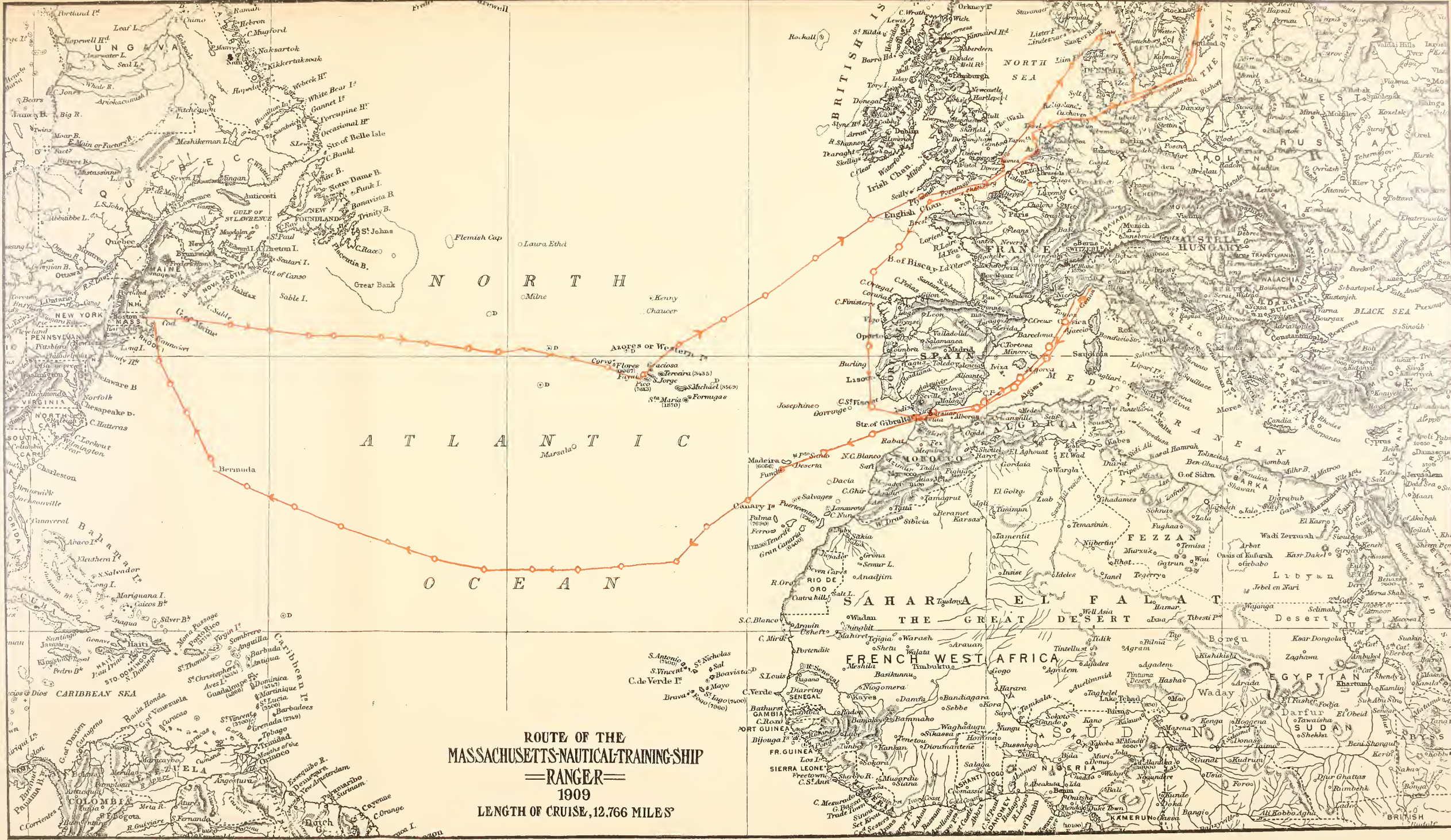
SECTION 3. They shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation, shall provide accommodations for the school on board a proper vessel, purchase and provide books, stationery, apparatus and supplies needed in the work of the school, appoint and remove instructors and other necessary employees, determine their number and compensation, fix the terms and conditions upon which pupils shall be received and instructed in the school and be discharged or dismissed therefrom, establish all regulations necessary for its proper management and shall from time to time provide for cruises in or from the harbor of Boston.

SECTION 4. They may receive from the United States government, and use for the accommodation of the school, such vessels as the secretary of the navy may detail.

SECTION 5. They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers within thirty days after the termination of said cruises.

SECTION 6. They shall annually, in January, report to the general court a detailed statement of all moneys appropriated and expended during the preceding year for the nautical training school, stating the results of the work during such year and making any necessary recommendations.





ROUTE OF THE  
MASSACHUSETTS NAUTICAL TRAINING SHIP  
=RANGER=  
1909  
LENGTH OF CRUISE, 12,766 MILES'









Massachusetts Nautical Training Ship "Ranger." — Sail Drill.



NINETEENTH ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1911.



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COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

---

GEORGE F. F. WILDE, *Chairman*,  
REAR ADMIRAL, U. S. N. (RETIRED).  
HON. JOHN READ, LATE U. S. N.  
WILLIAM E. MCKAY.

---

WILLIAM H. DIMICK, *Secretary*.





# The Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The commissioners have the honor to submit their report of the operations of the school for the year 1910.

### THE WORK IN GENERAL.

The Massachusetts Nautical Training School, on board the U. S. S. "Ranger," is experiencing one of the most prosperous periods in its history, there being more qualified applicants than the school can accommodate. Not since 1898, the year of the Spanish-American war, has there been so much interest taken in nautical education. The "Ranger," turned over to the State by the Navy Department last year, has proved to be, in most respects, well adapted for the work of the school. The practical work during the summer cruise, with the theoretical and vocational work of the winter term, has been satisfactory.

In the spring the training ship "Ranger" was equipped with a wireless telegraph set, a submarine signalling apparatus, a modern steam windlass, an electric generator and a new chart house. The wireless telegraph set was leased for the five months the ship was at sea. In the autumn, alterations, which were very necessary for the comfort and cleanliness of the crew, were made in the mess room of the petty officers and in the firemen's wash room. In order to more fully equip the "Ranger" for the work of training young men for the merchant marine, the commissioners propose to instal a modern steering engine and an electric refrigerating plant. The Navy Department has recently supplied the ship with a motor barge of the latest type, and the Bureau of Steam Engineering has informed the com-

mission that the "Ranger" has been placed on the list of vessels to be equipped with a navy wireless telegraph set when practicable.

From April 25 to April 28 the ship was in dock at the Boston Navy Yard, where minor repairs were made to the underbody. Permission was obtained from the Navy Department to store the deckhouse in a building at the Navy Yard, Boston, while the ship was at sea. The commissioners are indebted to Rear Admiral John C. Fremont, U. S. N., commandant of the yard, for his interest and assistance in this and other matters.

In view of the growing importance of electricity, more attention has been paid to this branch of the curriculum. The electrician has been rated as instructor in electricity, with an increased salary. In the work of instructing the cadets in wireless telegraphy good results have been obtained.

In an increasing degree shipping firms are co-operating with the commission in affording opportunities for graduates of the school. Many employers of officers, in making appointments, give the young men from this school the preference. About one-half of the officers on board the fourteen United States colliers are graduates of this school. The excellent progress made by the graduates at sea is of substantial interest and encouragement.

Most of the young men who are admitted to the school come from the high schools of the State, which indicates their character and qualifications. The seaman's vocation, however, is one that calls for pluck, determination and perseverance, and success in the merchant marine can be attained only by earnest, ambitious and virile young men.

The bulletins which are being issued several times a year are proving very effective in enabling the commissioners to present the different phases of the work in a concise and attractive form.

During the frequent visits of the commissioners to the school, they have been gratified to note the excellent condition of the school ship.

#### A PUBLIC LANDING.

The city of Boston is greatly in need of a public landing place. It is unfortunate that there is not such a landing where citizens and visitors to the city by water can embark and disembark. A

commodious public landing would be a distinct aid to the commissioners in carrying on their work, especially while the training ship is in the harbor preparing for the annual summer cruise. The private landing upon which we are obliged to depend at present is in many respects objectionable. It is hoped that we may soon have, at some accessible point, a safe, convenient and attractive municipal landing.

### THE SUMMER TERM.

The spring entrance examination was held on Saturday, April 2, and the summer term commenced on May 17 with an enrolment of 100 cadets, and additional applications in excess of the capacity of the school. The annual inspection of the ship and school by the Governor and Council was made on May 27, in Boston harbor. During the inspection, and while the ship was under way, the cadets executed the following drills: sail drill, fire drill, physical drill and "man overboard" drill. In the latter, the cadets lowered the lifeboat from the davits and picked up the buoy in one minute and forty seconds. The cadets were addressed by His Excellency Eben S. Draper, Lieutenant-Governor Louis A. Frothingham and members of the commission.

The summer term this year was divided into two cruises. The first or European cruise extended from May 18 to August 17; the "Ranger" visiting Horta, Lisbon, Marseilles, Gibraltar, Madeira, Ponta Delgada and Halifax. During the second or home cruise, from August 18 to October 15, the ship cruised along the coast from Gloucester to Newport News. This itinerary made it possible to give the cadets additional instruction in working the ship and in handling the boats under oars and sail. The cadets visited one of the largest ship-building plants in the country at Newport News.

At Lisbon Comdr. William F. Low, U. S. N., received the following letter from Mr. Louis H. Ayme, the United States Consul General at that port:—

I take great pleasure in informing you that to my personal knowledge, and from reports brought to this consulate by various Portuguese gentlemen and others, the conduct of the boys of the vessel under your command, while on liberty in this city, was such as to elicit the



highest praise and commendation. The cleanliness and neatness of their uniforms, and the gentlemanly manner in which they behaved, was most favorably commented on.

The "Ranger" arrived in Boston on October 15, and on the following day the commissioners visited the ship. The cadets were welcomed home by the chairman in a short address.

The report of Comdr. William F. Low, U. S. N., superintendent of the school, on the annual cruise, is as follows:—

The cadets were taken aboard May 17, and on the following day left Boston for Provincetown.

A week was spent at Provincetown drilling and stationing the cadets, and the ship returned to Boston May 24.

The Governor inspected the ship on the 26th, and on June 2 she sailed for Horta. An itinerary of the cruise is enclosed, with dates of departure and arrival at each port, and days at port and at sea.

During the cruise the cadets were divided into quarter watches, and were on deck all day, available for studies and drills. Most of the cruise the ship carried but three seamen so that nearly all the ship's work was performed by the cadets. Opportunity has been afforded to all the cadets to become good helmsmen, and much attention and time have been given to the handling of boats under sails and oars.

The senior as well as the junior cadets had frequent exercise on the jackstays; in making knots, sennits, splices; in sailmaking, rigging shears for lifting heavy weights, and signalling with international flags as well as hand semaphores; and were also instructed in rules of the road and the buoyage system of harbors and rivers.

#### NAVIGATION.

The work during the summer cruise was practical. As far as possible all subjects taught during the winter's term were applied.

The senior cadets were given ample opportunity to perfect themselves in the following subjects: dead reckoning, course and distance by middle latitude, sailing and Mercator sailing, taking departure, setting courses, plotting positions, latitude and longitude by observation, azimuths, comparing chronometers, use of charts, sailing directions, tide table, light lists, and use and adjustment of instruments.

The junior cadets were instructed in boxing the compass, the elements of dead reckoning, use of hand lead and sounding machine, keeping the log, and the use of the various instruments of navigation. This practical experience will be of great help during the coming winter's term.

Each day, while at sea, the senior cadets were required to pass in the following: noon position by dead reckoning and observation, course



and distance made good since preceding noon, set and drift of current during preceding day, the compass error and derivation on one heading.

During the latter part of the cruise, while on our coast, cadets were given an opportunity of observing the various methods practiced in coastwise navigation, both by day and night.

The patent sounding machine was used constantly off the coast of Nova Scotia, where dense fogs were experienced.

No opportunity presented itself this summer to put the sub-marine bell-receiving apparatus to a practical test. The wireless apparatus afforded an easy and efficient means of receiving the exact time for chronometer comparisons.

#### MARINE ENGINEERING.

The cadets received practical instruction as follows:—

*Senior Cadets.*—Firing, water tending, oiling, care and operation while getting under way; running and coming to anchor after a run; examination of boilers, engines, pumps, dynamos and engines of same; with such practical repairs as have come up from time to time during the cruise, such as taking up lost motion in bearings and taking leads of same to determine clearance; valve setting for practice and correction of errors shown by indicator diagrams; finding dead centers of engines; general overhauling of both steam and water ends of pumps; the indicator, mode of operation; taking and working out diagrams for horse power by ordinates and planimeter (Coffin's averaging instrument); calculations for horse power by the common method and by logarithms; propeller slip and kindred problems; care and operation, with repairs, of evaporator and distillers; handling, checking and stowing of coal when coaling ship.

*Junior Cadets.*—Coal passing, firing, water tending, oiling; care and operation of evaporators and distillers; uses of valves and fittings, and tracing pipe lines.

#### COAL REPORT FROM MAY 18 TO OCTOBER 14.

	Tons.
Coal on hand and received, . . . . .	960.9
Expended, . . . . .	909.7
	<hr/>
Remaining on hand, . . . . .	51.2
Expended as follows:—	
Galley, . . . . .	25.6
Distilling, . . . . .	45.8
Heating, . . . . .	5.7
Dynamo and other auxiliaries, . . . . .	234.6
Propulsion, . . . . .	597.7
	<hr/>
Total, . . . . .	909.7

## ELECTRICAL WORK.

*Junior Cadets.*—Instruction in the use of electrical appliances aboard ships. Various faults, their detection and remedy; wiring, protective devices, types of lamps and fixtures, ship's lights, motors, generators, ventilating sets, etc., illustrated with apparatus. Wireless telegraph and submarine bell-receiving sets.

*Senior Cadets.*—Members of the engineering department were assigned successively to the operation of the electric plant, and had charge, under the supervision of the electrician, of the dynamos and lighting. They performed all the work of running the machines, made repairs to wiring, etc., removed troubles and kept the system working satisfactorily. Repairs were also made, as needed, to the wireless apparatus. A number of the cadets from both seamen and engineering divisions stood regular watches in the wireless room, taking and sending messages with passing ships and shore stations. Several are now equipped to occupy positions with the commercial companies. An opportunity to acquire the art by the use of learners' sets was accepted by a number of cadets not assigned to this work.

Individual instruction in electric engineering was given, outside of hours, to several cadets who wished to advance themselves along special lines.

## MEDICAL DEPARTMENT.

Taking the cruise of 1910 as a whole, the health of the cadets has been very good.

Since arriving on our coast the health of the cadets has been exceptionally good, the daily attendance at sick call being the smallest for years, and a marked improvement in the general physical condition has been noted.

The air space between decks has been at all times sufficient, and all sanitary conditions have been excellent.

The accompanying table shows gains made, and the increase in weight is the greatest on the records of the school.

Course of instruction in first aid to injured, including how to act in presence of an emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhages, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat, fainting, shock, sunstroke, starving, drunkenness, convulsions, smothering by gas, drowning, poisons, dog, snake and insect bites and poison ivy; bandaging and making of dressing and poultices.

	May.	October.	Gain.
Weight, . . . . .	132 lbs.	140.3 lbs.	8.3 lbs.
Height, . . . . .	5 ft., 7.15 in.	5 ft., 7.35 in.	.2 in.
Chest, . . . . .	32.05 in.	32.80 in.	.75 in.
Chest expanded, . . . . .	34.25 in.	35.60 in.	1.35 in.
Arm, . . . . .	11.31 in.	11.61 in.	.3 in.
Abdomen, . . . . .	29.50 in.	29.85 in.	.35 in.
Leg (calf), . . . . .	12.65 in.	13.00 in.	.35 in.

*Itinerary of Cruise of 1910.*

May 17, cadets reported for cruise; May 18, Boston to Provincetown; May 24, returned to Boston; May 26, Governor's inspection; October 15, cadets left ship on leave.

Ports.	Left.	Arrived.	Distance (Miles).	Days in Port.	Days at Sea.
Boston-Horta, . . . . .	June 2,	June 12,	2,011	3	10
Horta-Lisbon, . . . . .	June 15,	June 19,	923	5	4
Lisbon-Marseilles, . . . . .	June 25,	June 29,	1,006	7	5
Marseilles-Gibraltar, . . . . .	July 6,	July 9,	713	5	4
Gibraltar-Funchal, . . . . .	July 14,	July 17,	606	4	3
Funchal-St. Michaels, . . . . .	July 21,	July 23,	536	2	2
St. Michaels-Halifax, . . . . .	July 26,	Aug. 5,	1,887	10	10
Halifax-Gloucester, . . . . .	Aug. 15,	Aug. 17,	370	7	2
Gloucester-Provincetown, . . . . .	Aug. 24,	Aug. 24,	45	4	1
Provincetown-Mattapoisett, . . . . .	Aug. 28,	Aug. 29,	137	3	1
Mattapoisett-Bristol, . . . . .	Sept. 1,	Sept. 1,	45	4	1
Bristol-Newport, . . . . .	Sept. 5,	Sept. 8,	380	8	3
Newport-Yorktown, . . . . .	Sept. 16,	Sept. 16,	48	3	1
Yorktown-Solomon's Island, . . . . .	Sept. 19,	Sept. 19,	85	10	1
Solomon's Island-Alexandria, . . . . .	Sept. 29,	Sept. 30,	118	11	1
Alexandria-Boston, . . . . .	Oct. 11,	Oct. 14,	661	-	3
			9,571	86	52

THE WINTER TERM.

The winter term commenced on Monday, November 28, with 103 cadets on the register.

The "Ranger" occupies the usual berth at the Marine Park, Commercial Street (between the Chelsea ferry and the Charlestown bridge), Boston.

Persons interested in the work of the school are cordially invited to visit the "Ranger" on any day excepting Saturday and Sunday, when the cadets are absent on home leave. Visitors will receive every attention, and the objects and advantages of the school will be fully explained by the officers.

The following are the officers and instructors now connected with the school: Comdr. William F. Low, U. S. N., superintendent and commanding officer; Boatswain John Danner, U. S. N., executive officer; Machinist John O'Neill, U. S. N., chief engineer; A. Russell Cushing, navigating officer; Boatswain Albert Seeckts, U. S. N., watch officer; Andrew J. Iverson, watch officer; Edmund L. Saunders, M.D., medical officer; Henry C. Fisher, instructor in electricity; Chief Yeoman Theodore C. Howe, U. S. N., paymaster and captain's clerk.

#### PERSONNEL.

July 1, 1910, Hon. John Read of Cambridge was reappointed a commissioner for three years.

Jan. 27, 1910, Rear Admiral N. M. Dyer, U. S. N., who was a commissioner of the school from April 22, 1903, to Jan. 30, 1906, died at his home in Melrose.

May 13, 1910, William J. Burns was appointed watch officer.

Aug. 26, 1910, M. A. Mackie was appointed paymaster and captain's clerk.

Aug. 31, 1910, Edward S. Groves resigned as paymaster and captain's clerk.

Aug. 31, 1910, William J. Burns resigned as watch officer.

Sept. 16, 1910, Andrew J. Iverson was appointed watch officer.

Sept. 16, 1910, M. A. Mackie resigned.

Sept. 17, 1910, C. F. Humphrey was appointed paymaster and captain's clerk.

Oct. 15, 1910, C. F. Humphrey resigned.

Dec. 15, 1910, Chief Yeoman Theodore C. Howe, U. S. N., was appointed paymaster and captain's clerk.



## WORK OF THE GRADUATES.

Capt. James S. Howes, a graduate of the school in the class of 1900, has been placed in command of the merchant steamship "Berkshire." Capt. George E. Eaton, Wakefield, class of 1895, has been transferred from the lighthouse tender "Azalea" to the new steamer "Hibiscus," one of the largest and finest vessels in the lighthouse establishment. Capt. Louis E. Congdon, class of 1898, was given temporary command of the "Rio Grande." Capt. George F. Waite, class of 1895, has been appointed inspector of hulls, Norfolk, Va.

In a letter from the commander-in-chief of the Asiatic fleet, addressed to Rear Admiral L. C. Heilner, U. S. N., Supervisor of Naval Auxiliaries, Osborne E. McKay, Provincetown, class of 1902, chief officer of the naval collier "Nanshan," received the commendation of Rear Admiral John Hubbard, U. S. N., for excellent work in rescuing five men from a capsized boat; and the recommendation was made that he be given the next high vacancy that occurs in the auxiliary service.

Frederick W. Jones, Winchester, class of 1897, has recently been appointed acting nautical expert in the hydrographic office, Washington, five graduates of the school being employed in this capacity in the hydrographic office. Clarence E. Nutting, class of 1906, and Leander C. Clapp, class of 1903, are second lieutenants in the United States Marine Corps. Forrest D. Clark, class of 1899, is chief engineer of the turbine passenger steamer "Harvard," which has recently completed a trip to the Pacific coast. Andrew J. Iverson of Salem, class of 1904, has been appointed watch officer on board the "Ranger."

The following is an abstract from the register of graduates: —

Graduated.	NAME.	Residence.	Position.	Vessel.
1895	George E. Eaton, . .	Wakefield, . .	Captain, . .	"Hibiscus."
1897	Fred'k A. Sparks, . .	Provincetown, .	Captain, . .	"Machigonne."
1896	Joseph W. McGrath, <sup>1</sup> .	Quincy, . . .	Captain, . .	"Discovery."
1900	James S. Howes, . .	Woods Hole, .	Captain, . .	"Berkshire."
1902	A. T. Luther, . . .	Swansea, . . .	Captain, . .	Government vessel, Panama Canal.

<sup>1</sup> Deceased.



Graduated.	NAME.	Residence.	Position.	Vessel.
1898	Louis E. Congdon, . .	Boston, . .	Captain, . .	"Rio Grande."
1896	Henry R. Bodge, . .	Wollaston, . .	Captain, . .	"St. Helens."
1901	Theodore H. Bicknell, .	Melrose, . .	Captain, . .	"Tarantula."
1902	Fred C. Seibert, . .	Greenfield, . .	First officer, .	"Vulcan."
1903	Robert B. Powers, . .	Brockton, . .	First officer, .	"Hannibal."
1897	Emery Rice, . . . .	Brighton, . .	First officer, .	"Manchuria."
1902	Osborne E. McKay, . .	Provincetown, .	First officer, .	"Nanshan."
1905	James A. Crocker, . .	Nahant, . . . .	First officer, .	"Indian."
1898	Carl E. A. Anderson, . .	Roslindale, . .	First officer, .	"Arizonan."
1897	Willis Howes, . . . .	S. Yarmouth, .	First officer, .	"Wright."
1900	Alfred M. Cummings, .	Worcester, . .	First officer, .	"Vulcan."
1896	Alvin W. Haynes, . . .	Somerville, . .	First officer, .	"Panama."
1901	John J. Coholan, . . .	S. Boston, . .	First officer, .	"Ajax."
1896	George R. Lauriat, . .	Medford, . . .	First officer, .	"James Henry."
1903	Benjamin O'Connell, . .	Peabody, . . .	First officer, .	"Colon."
1902	Wm. I. O'Reilly, . . .	S. Boston, . .	First officer, .	"Queen."
1902	Herman T. Parker, . . .	Rockport, . .	First officer, .	"Parthian."
1900	E. Newton Parker, . . .	Greenfield, . .	First officer, .	"Nero."
1895	James E. Reardon, . . .	Boston, . . . .	First officer, .	"Windber."
1895	Albert L. Warner, . . .	Waverley, . . .	First officer, .	"Eleazer W. Clark."
1899	Edward G. Smith, . . .	Boston, . . . .	First officer, .	"Coya."
1901	Robert W. Tucker, . . .	Kendal Green, .	First officer, .	"Ohio."
1904	John F. Williamson, . .	Brockton, . . .	First officer, .	"Orchid."
1901	Charles D. Harrington, .	Cambridge, . .	First officer, .	"H. M. Plant."
1898	Harlowe Johnson, . . .	Mattapoisett, .	First officer, .	"Parthian."
1898	Eldon G. Freeman, . . .	Whitman, . . .	First officer, .	"Sequoia."
1900	Walter Andrew, . . . .	Jamaica Plain, .	Second officer, .	"Ligonier."
1897	H. W. G. Atkins, . . . .	Holliston, . .	Second officer, .	"Adansi."
1903	Harry M. Bostwick, . .	Northbridge, .	Second officer, .	"Vulcan."
1899	Walter S. Lynch, . . . .	Chelsea, . . . .	Second officer, .	"Liberty."
1902	Edwin J. Madden, . . .	Everett, . . . .	Second officer, .	"St. Louis."
1903	Mark Woodbury, . . . .	Townsend, . . .	Second officer, .	"City of Memphis."
1904	Edward C. Roberts, . . .	Beverly, . . .	Second officer, .	"Windber."
1904	Leslie F. Holmes, . . .	E. Whitman, . .	Second officer, .	"Antilles."
1897	Charles W. Clift, . . . .	Whitman, . . .	Second officer, .	"McClellan."
1897	Leonard F. Cox, <sup>1</sup> . . .	Whitman, . . .	Second officer, .	"Alexander."
1898	Charles H. Kilmer, . . .	Somerville, . .	Second officer, .	"Leonidas."
1902	Harry E. Boesch, . . .	Wakefield, . .	Second officer, .	"Momus."

<sup>1</sup> Deceased.

Graduated.	NAME.	Residence.	Position.	Vessel.
1902	Arthur Jensen, . . .	Provincetown, .	Second officer, .	"Hannibal."
1903	Andrew B. Chase, Jr., .	New Bedford, .	Second officer, .	"Wm. L. Walker."
1905	Harry M. Maynard, . .	Winthrop, . . .	Second officer, .	"Mayflower."
1899	Adam M. Queen, <sup>1</sup> . . .	Hyde Park, . . .	Second officer, .	"Howard."
1908	Eugene P. Shevlin, . . .	E. Boston, . . .	Second officer, .	"Azalea."
1897	Mina Dailey, . . . . .	Rockport, . . .	Second officer, .	"Arthur Sewall."
1902	William M. Chisholm, . .	N. Attleboro', .	Second officer, .	- -
1907	Harry L. Chick, . . . .	Beverly, . . . .	Third officer, . .	"Justin."
1905	Harold H. Gridley, . . .	Dorchester, . . .	Third officer, . .	"Brutus."
1907	Elmer B. Small, . . . .	N. Truro, . . . .	Third officer, . .	"Prometheus."
1907	Walter L. Smith, . . . .	Ashburnham, . .	Third officer, . .	"Saturn."
1902	F. J. Butterfield, . . . .	Haverhill, . . .	Third officer, . .	Army Transport.
1906	William H. Lee, . . . . .	Boston, . . . . .	Third officer, . .	"Vestal."
1896	Harry M. Davie, <sup>1</sup> . . . .	Boston, . . . . .	Third officer, . .	"Thomas."
1900	William B. Knight, . . . .	Hull, . . . . .	Third officer, . .	"City of Seattle."
1903	Harold C. Rideout, . . . .	Concord, . . . .	Third officer, . .	"El Alba."
1907	William M. Gifford, . . . .	Woods Hole, . . .	Third officer, . .	"Cyclops."
1900	Joseph E. Gately, . . . .	Marlborough, . .	Fourth officer, . .	"St. Paul."
1905	Fred'k S. Walker, . . . .	Dorchester, . . .	Mate, . . . . .	"Mayflower."
1897	Orison W. Woodbury, . . .	Lynn, . . . . .	Mate, . . . . .	"Ellesmere."
1902	A. Russell Cushing, . . . .	Dorchester, . . .	Navigation officer.	"Ranger."
1904	Andrew J. Iverson, . . . .	Salem, . . . . .	Watch officer, . .	"Ranger."
1900	I. Clarence Bailey, . . . .	Kingston, . . . .	Boat keeper, . . .	"American" No. 1.
1899	Richard T. Blackford, . . .	Marblehead, . . .	- -	"Alice Black."
1895	Philip W. Lauriat, . . . .	Medford, . . . .	1st Lieut., U. S. R. C. S.	"Seneca."
1899	James A. Alger, . . . . .	Reading, . . . .	2d Lieut., U. S. R. C. S.	"Seneca."
1900	John F. McGourty, . . . .	Worcester, . . . .	2d Lieut., U. S. R. C. S.	"Mohawk."
1906	William F. Towle, . . . . .	Boston, . . . . .	2d Lieut., U. S. R. C. S.	"Seneca."
1898	Franklin B. Harwood, . . .	Rockport, . . . .	3d Lieut., U. S. R. C. S.	"Bear."
1898	Clarence E. Wood, . . . .	Fall River, . . .	Ensign, . . . . .	U. S. S. "Virginia."
1894	William H. Boardman, <sup>1</sup> . .	Lawrence, . . . .	Midshipman, . . .	U. S. Navy.
1907	Thomas Baxter, . . . . .	S. Dennis, . . . .	Midshipman, . . .	U. S. Navy.
1898	George F. Waite, . . . . .	Winthrop, . . . .	Inspector of Hulls, .	Norfolk, Va.
1900	Gershom Bradford, . . . .	Duxbury, . . . .	Nautical expert, . .	Navy department.
1895	George A. Collie, . . . . .	Worcester, . . . .	Nautical expert, . .	Navy department.
1897	Fred'k W. Jones, . . . . .	Winchester, . . .	Nautical expert, . .	Navy department.
1897	Arthur W. Morey, . . . . .	Greenfield, . . . .	Nautical expert, . .	Navy department.
1896	Charles S. Young, . . . . .	Boston, . . . . .	Nautical expert, . .	Navy department.
1906	Clarence E. Nutting, . . .	Cambridge, . . . .	2d Lieut., . . . .	U. S. Marine Corps.

<sup>1</sup> Deceased.

Graduated.	NAME.	Residence.	Position.	Vessel.
1903	Leander A. Clapp, . .	Brockton, . .	2nd Lieut., . .	U. S. Marine Corps.
1899	Forrest D. Clark, . .	Dorchester, . .	Chief engineer, . .	"Harvard."
1900	Hollis M. Cornwall, . .	Melrose, . .	Chief engineer, . .	"Persian."
1896	Jas. H. B. Meehan, . .	Lowell, . .	Chief engineer, . .	"Vulcan."
1902	Daniel F. Butler, . .	N. Easton, . .	Chief engineer, . .	"Gloria."
1900	William Glover, . .	Wilmington, . .	Chief engineer, . .	"Iris."
1900	Norris R. Sibley, . .	Worcester, . .	Chief engineer, . .	"Frances Hyde."
1895	Charles H. Lincoln, . .	Gloucester, . .	Chief engineer, . .	"Aztec."
1900	Charles E. Lowe, . .	Roxbury, . .	Chief engineer, . .	"Mackinaw."
1900	Elmer P. Butterworth, . .	Foxborough, . .	Chief engineer, . .	"J. M. Guffey."
1898	Charles E. Rowe, . .	Lynn, . .	Chief engineer, . .	"Nanshan."
1901	Eugene I. K. Murphy, . .	Worcester, . .	Chief engineer, . .	Government vessel, Panama Canal.
1898	John C. Ganser, . .	Jamaica Plain, . .	Chief engineer, . .	"Caribbean."
1898	Everett S. Ransom, . .	Mattapoisett, . .	Chief engineer, . .	"Parthenia."
1895	Frank A. Berry, . .	Watertown, . .	Chief engineer, . .	- -
1899	Frank B. Davis, . .	Dorchester, . .	First engineer, . .	"Olivette."
1897	Augustus T. Holmes, . .	Ipswich, . .	First engineer, . .	"J. M. Guffey."
1898	Frank P. Killion, . .	Malden, . .	First engineer, . .	"Kanai."
1901	Robt. A. Patterson, . .	Brighton, . .	First engineer, . .	"Vulcan."
1904	Charles W. Bumpus, . .	Wakefield, . .	First engineer, . .	"Cape Ann."
1898	Wilbur S. Lamont, . .	Leominster, . .	First engineer, . .	"Pocomoke."
1900	J. J. Donahoe, . .	Cambridge, . .	First engineer, . .	"Oregon."
1905	Walter C. Lockhart, . .	Wakefield, . .	First engineer, . .	"Caesar."
1896	Forrest H. McIntyre, . .	Gloucester, . .	First engineer, . .	"Daniel Millard."
1900	James F. Rawdon, . .	Worcester, . .	First engineer, . .	"Tuscan."
1895	Michael D. Sullivan, . .	Boston, . .	First engineer, . .	"Enterprise."
1897	P. W. Kimpton, . .	Somerville, . .	Second engineer, . .	"Shawmut."
1903	Edward A. Mercer, . .	Cambridge, . .	Second engineer, . .	"Prometheus."
1903	James S. McGarry, . .	Shrewsbury, . .	Second engineer, . .	"El Paso."
1901	Sidney A. Maglathlin, . .	W. Bridgewater, . .	Second engineer, . .	"Arethusa."
1895	F. H. Stackpole, . .	Hyde Park, . .	Second engineer, . .	"City of Brockton."
1898	Arthur P. Stevens, . .	Nantucket, . .	Second engineer, . .	"Ponce."
1906	A. C. Caldwell, . .	Dorchester, . .	Second engineer, . .	"Ajax."
1900	Ressie E. Bowser, . .	N. Abington, . .	Second engineer, . .	"Nero."
1902	Augustus W. Hart, . .	N. Truro, . .	Second engineer, . .	"Chippewa."
1902	Ernest L. Saunders, . .	Brockton, . .	Second engineer, . .	"Hector."
1900	Earle P. Marshall, . .	N. Easton, . .	Second engineer, . .	"Uruguay."
1905	Thomas W. Chisholm, . .	N. Billerica, . .	Second engineer, . .	"Arethusa."
1901	David W. Warren, . .	Boston, . .	Second engineer, . .	"Melrose."

Graduated.	NAME.	Residence.	Position.	Vessel.
1904	Cecil L. McIntyre, . .	Upton, . .	Second engineer, .	"Carib."
1896	James O. Sargent, . .	Worcester, . .	Second engineer, .	"St. Louis."
1903	Rudolph Komenda, . .	Somerville, . .	Third engineer, .	"Hannibal."
1907	Archie E. Bragg, . .	Woods Hole, . .	Third engineer, .	"Hannibal."
1906	John C. Sheedy, . .	Malden, . .	Third engineer, .	"Admiral Schley."
1906	Bradford N. A. Gladding, .	New Bedford, . .	Third engineer, .	"Massachusetts."
1910	Ernest B. Wyatt, . .	Wakefield, . .	Third engineer, .	"Vulcan."
1908	Arthur E. Whiton, . .	Wakefield, . .	Third engineer, .	"Justin."
1907	Joseph R. Wier, . .	Saundersville, . .	Third engineer, .	"Brutus."
1907	George H. Stickney, . .	Watertown, . .	Third engineer, .	"Vestal."
1908	George H. Cameron, . .	Wakefield, . .	Third engineer, .	"Leonidas."
1905	Charles F. Tarr, . .	Taunton, . .	Third engineer, .	"Mars."
1908	Thomas B. Pellett, . .	Worcester, . .	Third engineer, .	"Cyclops."
1906	Victor M. Foster, . .	East Boston, . .	Asst. engineer, .	"Satellite."
1906	Michael J. Doherty, . .	Winthrop, . .	Asst. engineer, .	Light vessel No. 90.
1906	Arthur G. Burbank, . .	Carver, . .	Asst. engineer, .	Light vessel.
1904	Charles R. Brown, Jr., . .	Dorchester, . .	Asst. engineer, .	- -
1898	David R. Driver, . .	Weston, . .	Asst. engineer, .	- -
1901	Frank A. Browne, . .	Westborough, . .	Asst. engineer, .	- -
1898	Alfred E. Collins, . .	Amesbury, . .	Engineer, . .	"Adele."
1897	Edward J. Cogan, . .	Lynn, . .	Engineer, . .	"Carmelia."
1896	William Gourville, . .	Gloucester, . .	Engineer, . .	"Dreamer."
1900	Everett A. Adams, . .	Boston, . .	Engineer, . .	"Anderson."
1907	Philip B. Marcy, . .	Boston, . .	Engineer, . .	"Mohawk."
1909	William H. Wiggin, . .	Brookline, . .	Engineer, . .	"Gov. Endicott."
1898	Joseph E. Sheedy, . .	Reading, . .	2d Lieut., Eng., U. S. R. C. S.	"Thetis."
1897	Lorenzo C. Farwell, . .	Dorchester, . .	2d Lieut., Eng., U. S. C. R. S.	"Forward."
1897	Albert F. Patterson, . .	Townsend, . .	2d Lieut., Eng., U. S. R. C. S.	"Woodbury."
1898	John T. Carr, . .	Malden, . .	2d Lieut., Eng., U. S. R. C. S.	"Snohomish."
1896	Webb C. Maglathlin, . .	Bridgewater, . .	2d Lieut., Eng., U. S. R. C. S.	"Perry."
1906	Henry C. Roach, . .	New Bedford, . .	3d Lieut., Eng., U. S. R. C. S.	"Androscoggin."
1895	Edward F. Gavagan, <sup>1</sup> . .	S. Boston, . .	Chief machinist,	"St. Paul,"
1898	Herbert E. Fish, . .	Mattapoisett, . .	Warrant machinist.	U. S. Navy.
1896	H. E. Kershaw, . .	Lawrence, . .	Warrant machinist.	U. S. Navy.
1906	C. Allan Holbrook, . .	Marlborough, . .	Machinist, . .	"Idaho."
1895	S. B. Gaylord, . .	Boston, . .	Machinist, . .	"Newark."
1905	Fred G. Carlton, . .	Maynard, . .	Machinist, . .	"New Jersey."
1904	C. George Dyson, . .	Billerica, . .	Electrician, . .	"Georgia."
1904	Joseph G. Whippen, . .	Lynn, . .	Electrician, . .	"Rhode Island."

<sup>1</sup> Deceased.

Graduated.	NAME.	Residence.	Position.	Vessel.
1905	Laurence G. Kelley, . .	Taunton, . .	Electrician, . .	"Illinois."
1905	John F. Kinnaly, . .	S. Boston, . .	Electrician, . .	"Vermont."
1906	Carroll L. Morgan, . .	Beverly, . .	Electrician, . .	"Connecticut."
1906	Louis H. Houghton, . .	Worcester, . .	Electrician, . .	"Missouri."
1906	William R. Dolan, . .	Worcester, . .	Electrician, . .	"Cleveland."
1907	Eugene E. Chaney, . .	Arlington, . .	Electrician, . .	"Tacoma."
1907	Louis L. LaMontagne, . .	Miller's Falls, . .	Electrician, . .	"Pilgrim."
1900	Howard F. Dow, . .	Lynn, . .	Electrician, . .	"Enterprise."
1903	Fred S. Garland, . .	Randolph, . .	Electrician, . .	"Alabama."
1908	Frederick W. Farquhar, . .	Lawrence, . .	Electrician, . .	"Relief."
1904	Charles A. Hill, . .	Melrose, . .	Electrician, . .	"Bay State."
1903	Guy H. Hudson, . .	Somerville, . .	Electrician, . .	"Alabama."
1902	John F. Murphy, . .	Worcester, . .	Electrician, . .	"Viper."
1902	William H. Connor, . .	Roxbury, . .	Electrician, . .	"Cæsar."



## CADETS ADMITTED, GRADUATED, AND HONORABLY DISCHARGED, FROM 1893 TO 1910, INCLUSIVE.

	ADMITTED.		GRADUATED.		HONORABLY DISCHARGED.			Withdrawn, dismissed, dropped, transferred.
	Sea- manship Class.	Engineer Class.	Totals.	Sea- manship Class.	Engineer Class.	Totals.	Engineer Class.	Totals.
1893,	138	-	138	-	-	-	-	29
1894,	42	21	63	-	-	-	17	43
1895,	33	38	71	19	10	38	6	12
1896,	35	39	74	20	17	37	15	31
1897,	32	41	73	20	21	41	10	20
1898,	42	57	99	15	25	40	14	26
1899,	34	45	79	11	12	23	17	41
1900,	28	50	78	14	36	50	12	21
1901,	34	37	71	18	18	29	8	16
1902,	32	58	90	16	22	38	16	20
1903,	34	32	66	17	14	31	15	17
1904, <sup>1</sup>	-	-	60	16	29	45	5	31
1905, <sup>1</sup>	-	-	65	10	10	20	-	9
1906, <sup>1</sup>	-	-	50	16	19	35	-	18
1907, <sup>1</sup>	-	-	60	10	15	25	-	17
1908, <sup>1</sup>	-	-	45	8	9	17	-	9
1909, <sup>1</sup>	-	-	81	14	22	36	-	7
1910, <sup>1</sup>	-	-	54	6	15	21	-	16
	-	-	1,317	223	303	526	-	395
	-	-					-	297

<sup>1</sup> Beginning in 1904, the cadets upon entrance are unclassified until their second year.

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1910.*

Number of cadets in the school Jan. 1, 1910: —			
Seamanship class, . . . . .		10	
Engineer class, . . . . .		17	
Nautical cadets, . . . . .		70	
Total, . . . . .		97	
Applications received, 1910, . . . . .			78
Applicants examined, . . . . .	71		
Failed to appear for examination, . . . . .	7		
Examined, . . . . .			71
Failed to pass mental examination, . . . . .	29		
Failed to pass physical examination, . . . . .	5		
Failed mentally and physically, . . . . .	4		
Passed examinations, . . . . .	33		
Passed examinations, . . . . .	33		
Re-examined mentally and passed, . . . . .	22		
Re-examined physically and passed, . . . . .	1		
	56		
Failed to qualify after passing examinations, . . . . .	2		
	54		
Total number admitted to school during 1910, . . . . .			54
Total number connected with school during 1910, . . . . .			151

*Cadets withdrawn during the Year 1910.*

Total number graduated, . . . . .			21
Seamanship class, . . . . .	6		
Engineer class, . . . . .	15		
Total number honorably discharged, . . . . .			16
Total number graduated and honorably discharged, . . . . .			37
Dropped from roll, . . . . .	4		
Withdrawn, . . . . .	11		
Total number withdrawn and dropped, . . . . .			15
Total withdrawals during 1910, . . . . .			52
Number of cadets in the school Jan. 1, 1911, . . . . .			99
Seamanship class, . . . . .	22		
Engineer class, . . . . .	28		
Nautical cadets, . . . . .	49		

## MEMBERSHIP OF THE SCHOOL.

*Graduating Class, April, 1910.*

Badger, Leslie S., . . . . .	Wakefield.
Griswold, George F., . . . . .	Watertown.
Hoyle, Harold P., . . . . .	Millbury.
Lewis, Charles R., . . . . .	Dorchester.
Loundes, Howell S., . . . . .	Worcester.
Tumey, Charles H., . . . . .	Southbridge.
Wiley, Frederick B., . . . . .	Wakefield.
Wyatt, Ernest B., . . . . .	Wakefield.

*Graduating Class, October, 1910.*

Anderson, R. Wilbur, . . . . .	Roslindale.
Barris, Edward R., . . . . .	Lowell.
Case, Paul, . . . . .	Brockton.
Grover, Harold C., . . . . .	Stoneham.
Hutchinson, Chas. S., . . . . .	Peabody.
McMillen, Fredric, . . . . .	Billerica.
Morris, Chester E., . . . . .	Springfield.
Older, Archibald W., . . . . .	Winthrop.
Sibley, George W., . . . . .	Worcester.
Stevenson, Eugene F., . . . . .	Spencer.
Sullivan, Russell H., . . . . .	Westfield.
Tewksbury, Allan W., . . . . .	Winthrop.
Tyler, Franklin K., . . . . .	Beachmont.

*Class to graduate, April, 1911.*

Aicardi, Angelo A., . . . . .	South Boston.
Bailey, Clifford, . . . . .	Ludlow.
Bartlett, Jr., William M., . . . . .	Nantucket.
Coakley, Patrick S., . . . . .	Malden.
Dickens, William E., . . . . .	Roxbury.
Dexter, Harold S., . . . . .	Mattapoisett.
Downey, Frank L., . . . . .	North Easton.
Ela, Norris T., . . . . .	East Douglas.
Fulton, David J., . . . . .	Wollaston.
Foque, Edwin N., . . . . .	West Medford.
Gorham, William M., . . . . .	Winthrop.
Harrington, Luther E., . . . . .	Winthrop.
Hanson, Henry O. K., . . . . .	Neponset.
Holmes, George T., . . . . .	Brockton.
Hill, Jerome W., . . . . .	Chicopee.
Leavitt, Harold S., . . . . .	Roxbury.

Lockhart, George L., . . . . .	Wakefield.
Long, Albert W., . . . . .	Arlington.
Lynn, Walter P., . . . . .	Beverly.
Ober, Henry W., . . . . .	Everett.
Plummer, Charles C., . . . . .	Cambridge.
Phinney, Robert F., . . . . .	Roslindale.
Rich, Chester H., . . . . .	Roxbury.
Turnbull, James D., . . . . .	Bridgewater.
Vose, Raymond C., . . . . .	Cambridge.
Whittemore, Roy G., . . . . .	Malden.
Ware, Jr., Albert L., . . . . .	Cambridge.

*Class to graduate, October, 1911.*

Blanchard, Walter H., . . . . .	Gloucester.
Bickerstaff, Charles B., . . . . .	Nantucket.
Besse, Wesley F., . . . . .	South Hanson.
Chisholm, Joseph C., . . . . .	North Billerica.
Eddy, John C., . . . . .	Boston.
Ettinger, Horace G., . . . . .	Allerton.
Fornason, Charles F., . . . . .	Gloucester.
Hubbard, Guy R., . . . . .	Provincetown.
Johnson, George L. E., . . . . .	Worcester.
Lundergan, John P., . . . . .	Brookton.
MacLeod, Levi E., . . . . .	Gloucester.
Miller, Eugene W., . . . . .	East Saugus.
McArdle, Arthur, . . . . .	Sandwich.
Marques, Alfred, . . . . .	Charlestown.
Mendell, John D., . . . . .	Mattapoisett.
Routledge, Richard J., . . . . .	Waverley.
Russo, John A., . . . . .	Roxbury.
Shaw, Frederic J., . . . . .	Cambridge.
Shaw, Lloyd S., . . . . .	Hull.
Simpson, William O., . . . . .	Nantucket.
Sweetser, Daniel T., . . . . .	Haverhill.
Thorndike, Harvey M., . . . . .	Swampscott.
White, Samuel D., . . . . .	Hyannisport.

*Class to graduate, April, 1912.*

Ainsworth, James M., . . . . .	Fall River.
Acorn, Albert H., Jr., . . . . .	Quincy.
Birdsall, John A., . . . . .	Melrose.
Brewster, Walter L., . . . . .	Somerville.
Cavanaugh, Richard J., . . . . .	New Bedford.
Ertel, Harold L., . . . . .	Longmeadow.
Fawcett, James D., . . . . .	Dorchester.

Horton, Chester A., . . . . .	Somerville.
Hughson, Caleb W., . . . . .	Mattapan.
Howard, Clarence L., . . . . .	Boston.
Morse, Chester L., . . . . .	Franklin.
Moore, Edward A., Jr., . . . . .	Forest Hills.
O'Donoghue, William H., . . . . .	Roxbury.
O'Connell, Richard K., . . . . .	North Easton.
Perkins, Alexander G., Jr., . . . . .	Newburyport.
Preston, Frank M., . . . . .	South Byfield.
Quinn, Charles W., . . . . .	Pittsfield.
Shippey, Carlyle E., . . . . .	Pittsfield.
Thompson, John W., . . . . .	Marion.
Vlass, Roy L., . . . . .	Marlborough.
Winslow, Harold S., . . . . .	Canton.

*Class to graduate, October, 1912.*

Buckley, Daniel G., . . . . .	Gloucester.
Bickerstaff, Richard C., . . . . .	Nantucket.
Burns, Herbert A., . . . . .	New Bedford.
Blair, James R., . . . . .	Somerville.
Cahoon, David W., . . . . .	Siasconset.
Cahoon, Kenneth E., . . . . .	West Tisbury.
Cornell, Charles B., . . . . .	Medford.
Crocker, John W., . . . . .	Nahant.
Culley, Albert W., . . . . .	Fitchburg.
Davison, George R., . . . . .	Springfield.
Daniel, Joseph M., . . . . .	Osterville.
Eastman, Russell A., . . . . .	West Dennis.
Folger, Ellenwood, . . . . .	Siasconset.
Gray, Robert M., . . . . .	Melrose Highlands.
Hamilton, William A., . . . . .	Cliftondale.
Kenney, Philip B., . . . . .	Danvers.
Merrill, Norman E., . . . . .	Walpole.
Matthews, Fred I., . . . . .	Boston.
Marks, John M., . . . . .	Gloucester.
McGowan, Francis J., . . . . .	Somerville.
Olenick, Paul M., . . . . .	Brockton.
Racicot, Louis H., . . . . .	Lowell.
Sylvaro, Joseph B., . . . . .	Nantucket.
Smith, Ralph N., . . . . .	Worcester.
Scott, Frederick G., . . . . .	Boston.
Swift, Henry M., . . . . .	Roxbury.
Turnquist, Henry E., . . . . .	Roxbury.
Wheeler, Blair S., . . . . .	Melrose.



## APPROPRIATIONS.

The appropriations for the school for the fiscal year 1910, from Dec. 1, 1909, to Nov. 30, 1910, are here accounted for as follows:—

*Current Expenses.*

Appropriation, . . . . .	\$60,000 00
Expended:—	
Pay roll, . . . . .	\$28,123 96
Provisions, . . . . .	12,107 17
Text-books, stationery and printing, . . . . .	691 72
Seamanship department, . . . . .	3,101 42
Engineering department, . . . . .	9,079 69
Repairs, . . . . .	4,377 44
Miscellaneous, . . . . .	2,504 71
Total amount expended, . . . . .	<hr/> 59,986 11
Balance unexpended, . . . . .	\$13 89

*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
Expended:—	
Salaries, . . . . .	\$2,882 07
Advertising, . . . . .	811 63
Printing, . . . . .	366 71
Commissioners' expenses, . . . . .	292 00
Stationery and postage, . . . . .	331 80
Miscellaneous, . . . . .	284 57
Total amount expended, . . . . .	<hr/> 4,968 78
Balance unexpended, . . . . .	\$31 22

Respectfully submitted,

GEORGE F. F. WILDE,

REAR ADMIRAL, U. S. N. (RETIRED).

HON. JOHN READ, LATE U. S. N.

WILLIAM E. MCKAY.

Boston, Jan. 1, 1911.

59986.11  
4968.78  
64954.89

## FEDERAL AND STATE LEGISLATION.

### AUTHORITY OF THE UNITED STATES.

CHAPTER 339, JUNE 20, 1874.

#### AN ACT TO ENCOURAGE THE ESTABLISHMENT OF PUBLIC MARINE SCHOOLS.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

### AUTHORITY OF THE STATE OF MASSACHUSETTS.

CHAPTER 45, REVISED LAWS, AS AMENDED BY CHAPTER 171, ACTS OF 1903.

#### THE NAUTICAL TRAINING SCHOOL.

SECTION 1. There shall be a board of commissioners of the Massachusetts nautical training school consisting of three citizens of the commonwealth, one of whom shall annually, before the first

day of July, be appointed by the governor, with the advice and consent of the council, for a term of three years from said first day of July.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed by the commonwealth for all expenses actually incurred by them in the performance of their official duties.

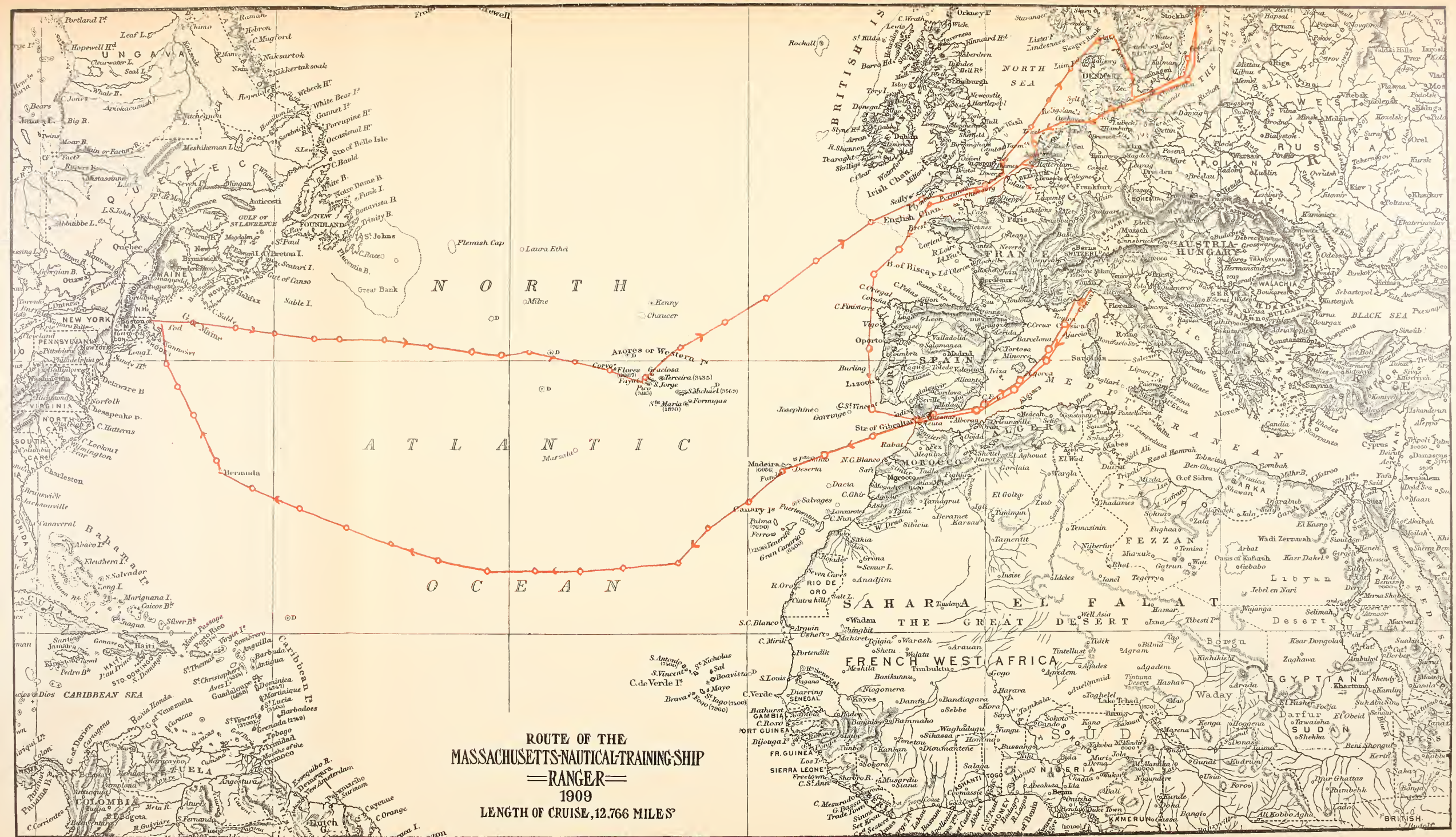
SECTION 3. They shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation, shall provide accommodations for the school on board a proper vessel, purchase and provide books, stationery, apparatus and supplies needed in the work of the school, appoint and remove instructors and other necessary employees, determine their number and compensation, fix the terms and conditions upon which pupils shall be received and instructed in the school and be discharged or dismissed therefrom, establish all regulations necessary for its proper management and shall from time to time provide for cruises in or from the harbor of Boston.

SECTION 4. They may receive from the United States government, and use for the accommodation of the school, such vessels as the secretary of the navy may detail.

SECTION 5. They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers within thirty days after the termination of said cruises.

SECTION 6. They shall annually, in January, report to the general court a detailed statement of all moneys appropriated and expended during the preceding year for the nautical training school, stating the results of the work during such year and making any necessary recommendations.





ROUTE OF THE  
MASSACHUSETTS NAUTICAL TRAINING SHIP  
== RANGER ==  
1909  
LENGTH OF CRUISE, 12,766 MILES









The Massachusetts Nautical Training Ship "Ranger," leaving Boston harbor on the summer cruise.

TWENTIETH ANNUAL REPORT

OF

*Mass*  
THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL  
TRAINING SCHOOL.

JANUARY 1, 1912.



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COMMISSIONERS  
OF THE  
MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

---

JOHN F. MERRY, *Chairman.*

REAR ADMIRAL, U. S. N. (RETIRED).

HON. JOHN READ, LATE U. S. N.

WILLIAM E. MCKAY.

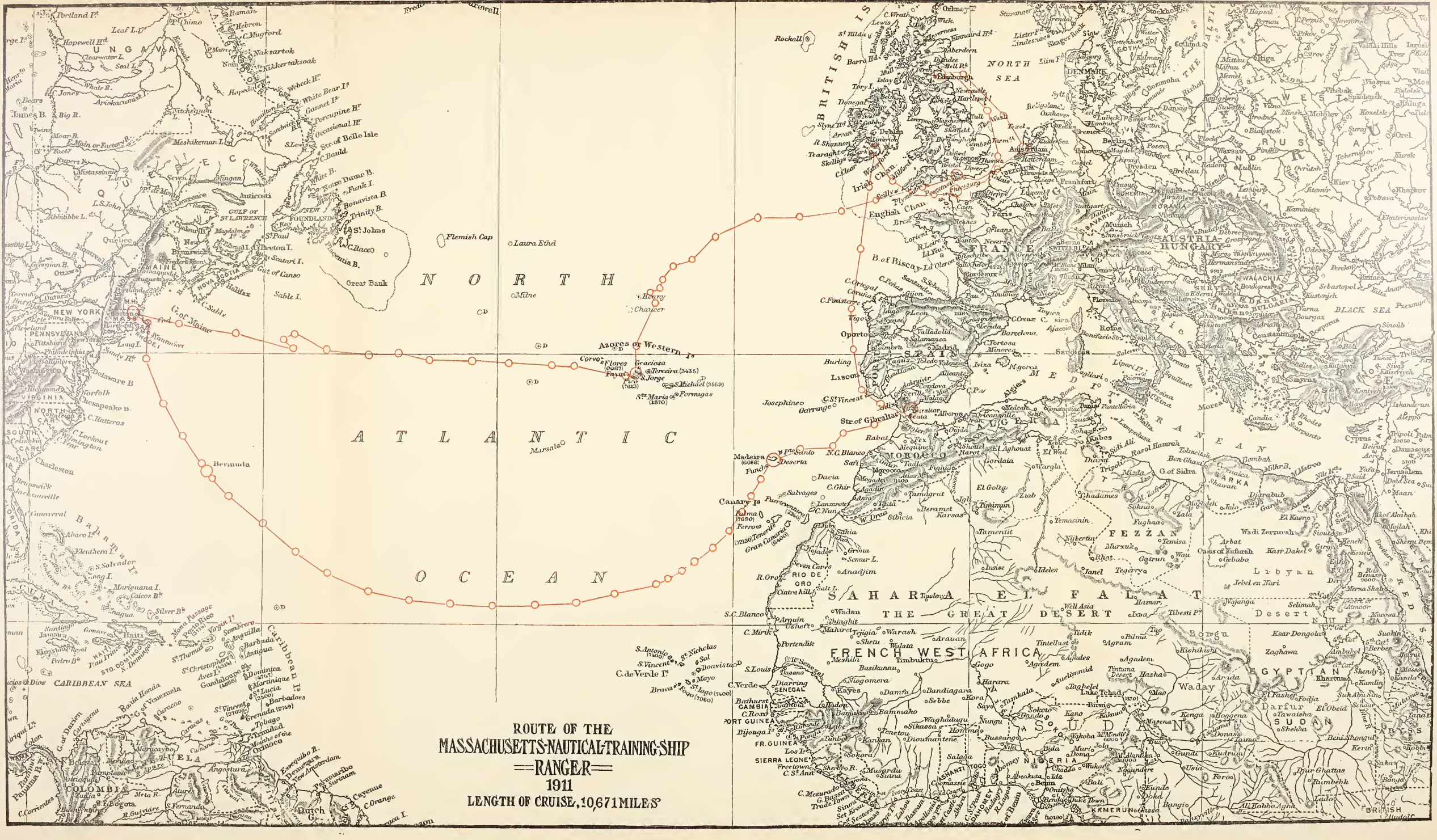
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WILLIAM H. DIMICK, *Secretary.*









ROUTE OF THE  
MASSACHUSETTS NAUTICAL TRAINING SHIP  
— RANGER —  
1911  
LENGTH OF CRUISE, 10,671 MILES



# The Commonwealth of Massachusetts.

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## MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.*

The commissioners have the honor to submit their report of the operations of the school for the year 1911.

### THE WORK IN GENERAL.

Under an able and energetic corps of officers and instructors, the work of the school has been maintained at a high standard of efficiency. The number of cadets in the school has been limited only by the capacity of the ship. While not in every respect of the most modern type, the equipment is well adapted for the work of the school.

The "Ranger" was docked at the Boston Navy Yard on April 5, and the following repairs were made to the hull: spar deck caulked; ship's underbody painted; valves, rudder-head and life-buoys overhauled; gaskets fitted to deck and cabin ports; patent scupper plugs fitted; davits altered for motor barge; ovens and galleys overhauled.

After the ship left the Navy Yard, the following repairs were made in the engineer's department: auxiliary feed water line to boilers installed; grease extractor installed; plates and angles at waterway renewed. A wireless telegraph apparatus was installed, and a new lathe and other tools were added to the machine shop equipment. It was also found necessary to renew the trysail and fore topmast staysail. The Navy Department furnished the "Ranger" with a motor barge and a gig.

During the coming year it will be necessary to supply a new evaporator shell, and to make extraordinary repairs to the main engine, fire and bilge pumps, and the air and circulating pumps.

Persistent efforts have been made to bring graduates in touch with marine superintendents, captains and other employers of officers. More graduates have been placed than in any previous year. At times it has been impossible to find available graduates to fill desirable positions.

Many courtesies have been extended to the commissioners by the authorities of the Boston Navy Yard, and especially by Capt. DeWitt Coffman, U. S. N., commandant of the yard.

#### A PUBLIC LANDING.

Since the school was established, nineteen years ago, the commissioners have felt the need of a public landing in Boston. At European ports there are available convenient and attractive municipal landing places, far superior to the unsightly and primitive private landing which the crew and cadets are compelled to use in Boston. It is hoped that the construction of proper public landing places will be included in the comprehensive scheme which is about to be worked out for the development of the port of Boston.

#### PERSONNEL.

Rear Admiral Geo. F. F. Wilde, U. S. N., a commissioner of the school for nearly six years, died at his home in North Easton on Dec. 3, 1911. He was appointed a member of the commission on Feb. 7, 1906, and was elected chairman on Feb. 21, 1906. Rear Admiral Wilde was deeply interested in the work and always zealous in promoting its highest welfare.

On Dec. 13, 1911, His Excellency the Governor nominated Rear Admiral John F. Merry, U. S. N., of Somerville, as a commissioner. The nomination was confirmed by the Executive Council on December 20. He was elected chairman Jan. 1, 1912. The new commissioner is thoroughly familiar with the work and its needs, as he organized the school and served as superintendent the first three years of its establishment, on board the U. S. S. "Enterprise," from Nov. 29, 1892, until Nov. 30, 1895.

July 1, 1911, William E. McKay was reappointed a commissioner for three years.

On Feb. 23, 1911, Comdr. William F. Low, U. S. N., who was superintendent of the school for eight years, tendered his

resignation to take effect at the close of the school term, April 1. He was succeeded by Comdr. Charles N. Atwater, U. S. N., formerly superintendent of the Pennsylvania Nautical School. Commander Atwater's active service in the navy covered a period of thirty-three years, of which more than seventeen years were spent at sea. His large experience in preparing young men for a sea-faring career qualifies him to maintain the high standard of nautical education which has existed in Massachusetts during the past nineteen years.

April 8, 1911, Chief Boatswain John Danner, U. S. N., detached.

April 16, 1911, Chief Boatswain Harry R. Brayton, U. S. N., ordered to the "Ranger" and appointed executive officer. Mr. Brayton previously served as executive officer of the "Enterprise" from June 15, 1907, to April 4, 1908.

Nov. 13, 1911, Boatswain Albert Seeckts, U. S. N., watch officer, detached.

Nov. 13, 1911, Chief Boatswain Frank Miller, U. S. N., ordered to the "Ranger" and appointed watch officer.

#### THE SUMMER TERM.

The summer term commenced on May 8 with an enrolment of 104 cadets. On May 11 the "Ranger" sailed on the usual preliminary cruise to Provincetown, returning to Boston on May 24. On May 25 the ship was inspected by the commissioners. Among those present were the commandant of the Navy Yard, the legislative committee on military affairs, and members of the committee on maritime affairs of the Boston Chamber of Commerce.

The inspection of the school by His Excellency the Governor and Council took place on June 1. The ship steamed out a short distance beyond Boston Light, and during the time the cadets were exercised at sail drill, fire drill, "abandon ship" drill, "man overboard" drill, and setting up exercises. In the "man overboard" drill the buoy was picked up in one minute and forty seconds. Addresses were made by Governor Foss, Lieutenant-Governor Frothingham and others.

The "Ranger" sailed from Boston for Horta, Azores, on June 3. The annual cruise, covering a period of five months

and fourteen days, was one of the longest and most satisfactory in the history of the school. The ship sailed 10,671 miles without a serious mishap of any kind. Much time was spent in cruising under sail alone, with all sails set, for the instruction of the cadets. The ship proceeded under sail alone for twenty-eight days. The observation of European docks and shipping at Amsterdam, Leith, Southampton, Queenstown and Cherbourg afforded the cadets large opportunities for gaining valuable knowledge in the line of their profession. The "Ranger" arrived in President Roads on October 25, and on the day following anchored in the upper harbor, where the ship and cadets were inspected by the commissioners.

The report of Comdr. Charles N. Atwater, U. S. N., superintendent of the school, on the annual cruise, is as follows: —

The annual overhauling of the "Ranger" was completed in time to receive the cadets on board on May 8. On May 12 she proceeded to Provincetown, where eleven days were spent at exercises and drills for accustoming the new cadets to their duties and enabling the old ones properly to assume fresh responsibilities. On June 3, two days after the ship was inspected by the Governor, she sailed from Boston on her summer cruise, an itinerary of which is appended.

Over one-half of the five months the "Ranger" was away was spent at sea, and during this time the cadets stood watch and watch on deck, or in three watches in the engine and fire rooms while steaming, in order to accustom them to the service conditions of the merchant marine and gain all the practical experience possible. In addition to the usual port drills and exercises the cadets were kept out pulling and sailing in boats as much as possible, and whenever the weather was unfavorable for out-door exercises class work was carried on in the various professional branches.

Liberal shore leave was granted the cadets, but emphasis was laid upon the fact that such leave was a privilege and not a right. Cadets whose conduct and application warranted it usually found themselves free to go ashore every other afternoon, and from 10 A.M. until sunset on either Saturday or Sunday, while the few who misbehaved or neglected their work found themselves obliged to remain on board to work off their demerits at extra duty. Nearly one-half of the cadets were never on the report during the cruise, not even for such trivial offenses as inattention at studies, late at formation or clothing not brushed. While the privilege of seeing various countries is of the greatest educational value, it would encourage lawlessness and indifference to grant it without restriction to all alike. However, almost every cadet was ashore at least once in each port visited.



The cadets are a fine average of self-respecting and earnest young men. It is gratifying to observe that the qualities of manliness, self reliance and responsibility may almost be measured by the time a class of cadets has been in the school, which indicates that the school is one of character as well as of attainment.

#### SEAMANSHIP.

The cadets of the two lower classes were instructed in making bends, hitches, knots and splices; in the names of the parts of the ship and of her tackle and equipment, such as spars, sails, anchors and chains; in work aloft loosing, furling, reefing and making and taking in sail; in marking and heaving the lead and the chip log; in compass and steering, and in standing lookouts; in signalling, and in other routine duties of seamen.

The cadets of the first and second classes were taught the duties and responsibilities of sea officers and petty officers. They stood watch as boatswains and quartermasters, and day watches as officer of the deck under sail and under steam. It was occasionally their duty to make and take in sail and even to take charge and give orders at sail drill. They acted as coxswains of boats. In general as much responsibility as possible was placed upon them.

#### NAVIGATION.

The work during the summer cruise was mostly practical, although some time at Amsterdam and Cherbourg was given to theoretical instruction. As far as possible all subjects taught during the winter's term were applied.

The senior cadets were given ample opportunity to perfect themselves in dead reckoning, course and distance by middle latitude, sailing and Mercator sailing, taking departure, setting courses, plotting positions, latitude and longitude by observation, azimuths, comparing chronometers, use of charts, sailing directions, tide table, light lists, and use and adjustment of instruments.

The junior cadets were instructed in boxing the compass, the elements of dead reckoning, use of hand lead and sounding machine, keeping the log and the use of the various instruments of navigation. This practical experience will be of great help during the coming winter term.

Each day, while at sea, the senior cadets were required to pass in the following: noon position by dead reckoning and observation, course and distance made good since preceding noon, set and drift of current during preceding day, compass error and deviation on one heading.

While on the coast cadets were given an opportunity of observing the various methods practiced in coastwise navigation, both by day and night.

The patent sounding machine was used constantly while on soundings.



## MARINE ENGINEERING.

*Senior Cadets.*—Firing, water tending, oiling, care and operation of boilers and engines while getting under way, running and coming to anchor after a run; care of boilers while foaming or priming, and the use of the salinometer for determining density and the litmus-test for acidity of water in boilers; examination of boilers, engines, pumps, dynamos, and engines of same, with such practical repairs as have come up from time to time during the cruise, as reseating and grinding in valves, making joints in pipe lines, packing rods and valves; examination of pistons, rings and springs of same, and lining up of pistons in cylinders; repairs to line and propeller shafts where dropped in after clutch; taking up lost motion in bearings and the use of leads to determine clearance in same; finding dead centers of engines and setting valves of same to correct errors shown by indicator diagrams; the indicator, care and operation; taking and working out diagrams by ordinates and planimeter (Coffin's averaging instrument); calculations for horsepower by logarithms and the common methods; propeller slip and kindred problems; operation and repairs of evaporator and distillers; handling, checking and stowing of coal when coaling ship. These cadets were examined monthly as to their general knowledge of location and use of the various valves, pipes and fittings within the department.

*Junior Cadets.*—Coal passing, firing, water tending, operation of evaporator and distillers, and tracing pipe lines.

## COAL REPORT FROM MAY 11 TO OCT. 26, 1911.

	Tons.
Coal on hand and received, . . . . .	904.07
Expended, . . . . .	871.88
	<hr/>
Remaining on hand, . . . . .	32.19
Expended as follows:—	
Galley, . . . . .	26.63
Distilling, . . . . .	65.41
Heating, . . . . .	1.31
Dynamo and other auxiliaries, . . . . .	259.94
Propulsion, . . . . .	518.59
	<hr/>
Total, . . . . .	871.88

## ELECTRICAL WORK.

*Junior Cadets.*—Instruction in the use of electrical appliances aboard ships. Various faults, their detection and remedy; wiring, protective devices, types of lamps and fixtures; ship's lights, motors, generators, ventilating sets, etc., illustrated with apparatus. Wireless telegraph and submarine-bell receiving sets.

*Senior Cadets.*—Members of the engineering department were assigned successively to the operation of the electric plant, and had charge, under the supervision of the electrician, of the dynamos and lighting. They performed all the work of running the machines, made repairs to wiring, etc., removed troubles and kept the system working satisfactorily. Repairs were also made, as needed, to the wireless apparatus. A number of the cadets from both seamen and engineering divisions stood regular watches in the wireless room, taking and sending messages with passing ships and shore stations. Theoretical instruction by classes was given forenoons while the ship lay in foreign ports.

#### MEDICAL DEPARTMENT.

The health of the cadets during the cruise has been very good. There have been no serious accidents nor epidemics. At the beginning of the cruise all the cadets were vaccinated, 15 per cent. taking.

The fact that distilled water is used on the ship, and that the cadets are warned against drinking water or milk ashore in ports where sanitary conditions are not good, accounts for the absence of typhoid and dysentery.

The air space between decks has been at all times sufficient, and all sanitary conditions have been excellent. The gun deck has been sprinkled with a solution of formine every day, while once a week the gun deck bulkheads have been sprinkled with this solution.

#### *Itinerary of Cruise of 1911.*

May 6, cadet officers and crew captains reported from leave; May 8, cadets reported from leave; May 12, Boston to Provincetown; May 23, Provincetown to Boston; May 25, inspection by commissioners; June 1, inspection by Governor; June 3, sailed on cruise.

Ports.	Distance (Miles).	Left	Arrived.	Days at Sea.	Days in Port.
Boston-Horta, . . . . .	2,025	June 3	June 18	15	-
Horta-Southampton, . . . . .	1,407	June 21	July 5	13	3
Southampton-Leith, . . . . .	560	July 17	July 20	3	12
Leith-Amsterdam, . . . . .	395	July 27	July 29	2	7
Amsterdam-Cherbourg, . . . . .	321	Aug. 7	Aug. 9	2	9
Cherbourg-Queenstown, . . . . .	330	Aug. 17	Aug. 19	2	8
Queenstown-Gibraltar, . . . . .	1,104	Aug. 29	Sept. 5	7	10
Gibraltar-Funchal, . . . . .	627	Sept. 12	Sept. 17	5	7
Funchal-Bermuda, . . . . .	3,075	Sept. 23	Oct. 15	22	6
Bermuda-Boston, . . . . .	737	Oct. 21	Oct. 25	4	6
	10,671			75	52

October 25, arrived in President Roads; October 26, made fast to North End Park, cadets left ship on leave; seventy-five days at sea (twenty-eight days under sail alone, forty-seven days steaming), sixty-eight days in port; 10,671 miles total distance (2,455 under sail, 7,086 under steam).

## THE WINTER TERM.

Immediately upon arrival in Boston the ship was berthed at the Marine Park, Commercial St. (between Chelsea ferry and Charlestown bridge), and preparations were made for opening the winter term on Monday, December 4.

Persons interested in the work of the school are cordially invited to visit the "Ranger" on any day except Saturday and Sunday, when the cadets are absent on home leave. Visitors will be courteously received and the objects and advantages of the school explained by the officers.

The following are the officers and instructors now connected with the school:—

Superintendent and commanding officer, Comdr. Charles N. Atwater, U. S. N.

Executive officer, Chief Boatswain Harry R. Brayton, U. S. N.

Chief engineer, Machinist John O'Neill, U. S. N.

Navigator, A. Russell Cushing (graduate M. N. T. S.).

Watch officer, Chief Boatswain Frank Miller, U. S. N.

Watch officer, Andrew J. Iverson (graduate M. N. T. S.).

Medical officer, Edmund L. Saunders, M.D.

Paymaster and captain's clerk, Theodore C. Howe, U. S. N.

Instructor in electricity, Henry C. Fisher.

## REGISTER OF GRADUATES.

The following is an abstract from the register of graduates:—

Graduated.	NAME.	Residence.	Position.	Vessel.
1894	Henry G. Carpenter, <sup>1</sup>	Roxbury,	Captain,	"Frances Alice."
1894	James E. Reardon, <sup>1</sup>	Boston,	Captain,	"Miguelito."
1895	George E. Eaton,	Wakefield,	Captain,	"Anemone."
1896	Henry R. Bodge,	Wollaston,	Captain,	"St. Helens."
1896	Wm. N. P. Baker,	Dorchester,	Captain,	"Pathfinder."
1896	Alvin W. Haynes,	Somerville,	Captain,	"Allianca."
1897	Fred'k A. Sparks,	Provincetown,	Captain,	"Machigonne."
1897	Emery Rice,	Brighton,	Captain,	"Zafiro."
1898	Louis E. Congdon,	Boston,	Captain,	"Rio Grande."
1898	Carl E. A. Anderson,	Roslindale,	Captain,	"Nebraskan."
1900	James S. Howes,	Woods Hole,	Captain,	"Berkshire."
1901	Theo. H. Bicknell,	Melrose,	Captain,	"Tarantula."

<sup>1</sup> Transferred.

Graduated.	NAME.	Residence.	Position.	Vessel.
1902	Arthur T. Luther, . . .	Swansea, . . .	Captain, . . .	Government vessel,
1895	Albert L. Warner, . . .	Waverley, . . .	First officer, . . .	Panama Canal.
1896	George R. Lauriat, . . .	Medford, . . .	First officer, . . .	"Eleazer W. Clark."
1897	Willis Howes, . . .	S. Yarmouth, . . .	First officer, . . .	"James Henry."
1898	Harlowe Johnson, . . .	Mattapoisett, . . .	First officer, . . .	"Wright."
1898	Eldon G. Freeman, . . .	Whitman, . . .	First officer, . . .	"Parthian."
1899	Edward G. Smith, . . .	Boston, . . .	First officer, . . .	"Sequoia."
1900	Alfred M. Cummings, . . .	Worcester, . . .	First officer, . . .	"Coya."
1900	E. Newton Parker, . . .	Greenfield, . . .	First officer, . . .	"Arethusa."
1901	John J. Coholan, . . .	S. Boston, . . .	First officer, . . .	"Nero."
1901	Robert W. Tucker, . . .	Kendal Green, . . .	First officer, . . .	"Ajax."
1901	Chas. D. Harrington, . . .	Cambridge, . . .	First officer, . . .	"Ohio."
1902	Fred C. Seibert, . . .	Greenfield, . . .	First officer, . . .	"H. M. Plant."
1902	Osborne E. McKay, . . .	Provincetown, . . .	First officer, . . .	"Vulcan."
1902	Wm. I. O'Reilly, . . .	S. Boston, . . .	First officer, . . .	"Nanshan."
1902	Herman T. Parker, . . .	Rockport, . . .	First officer, . . .	"Queen."
1903	Robert B. Powers, . . .	Brockton, . . .	First officer, . . .	"Parthian."
1903	Benj. O'Connell, . . .	Peabody, . . .	First officer, . . .	"Hannibal."
1904	John F. Williamson, . . .	Brockton, . . .	First officer, . . .	"Colon."
1905	James A. Crocker, . . .	Nahant, . . .	First officer, . . .	"Ivy."
1897	Chas. W. Clift, . . .	Whitman, . . .	Second officer, . . .	"Quantic."
1897	Mina Dailey, . . .	Rockport, . . .	Second officer, . . .	"McClellan."
1897	H. W. G. Atkins, . . .	Holliston, . . .	Second officer, . . .	"Arthur Sewall."
1898	Charles H. Kilmer, . . .	Somerville, . . .	Second officer, . . .	"Adansi."
1899	Walter S. Lynch, . . .	Chelsea, . . .	Second officer, . . .	"Leonidas."
1900	Walter Andrew, . . .	Jamaica Plain, . . .	Second officer, . . .	"Liberty."
1902	Edwin J. Madden, . . .	Everett, . . .	Second officer, . . .	"Ligonier."
1902	Harry E. Boesch, . . .	Wakefield, . . .	Second officer, . . .	"St. Louis."
1902	Arthur Jensen, . . .	Provincetown, . . .	Second officer, . . .	"Momus."
1902	Wm. M. Chisholm, . . .	N. Attleboro', . . .	Second officer, . . .	"Hannibal."
1903	Harry M. Bostwick, . . .	Northbridge, . . .	Second officer, . . .	-
1903	Mark Woodbury, . . .	Townsend, . . .	Second officer, . . .	"Vulcan."
1903	Andrew B. Chase, . . .	New Bedford, . . .	Second officer, . . .	"City of Memphis."
1904	Leslie F. Holmes, . . .	E. Whitman, . . .	Second officer, . . .	"Wm. L. Walker."
1905	Harry M. Maynard, . . .	Winthrop, . . .	Second officer, . . .	"Antilles."
1908	Eugene P. Shevlin, . . .	E. Boston, . . .	Second officer, . . .	"Mayflower."
1907	Elmer B. Small, . . .	N. Truro, . . .	Second officer, . . .	"Azalea."
1900	Wm. B. Knight, . . .	Hull, . . .	Third officer, . . .	"Justin."
1902	F. J. Butterfield, . . .	Haverhill, . . .	Third officer, . . .	"City of Seattle."
				Army Transport.



Graduated.	NAME.	Residence.	Position.	Vessel.
1903	Harold C. Rideout,	Concord, .	Third officer, .	"El Alba."
1905	Harold H. Gridley, .	Dorchester, .	Third officer, .	"Brutus."
1906	Wm. H. Lee, . . .	Boston, . .	Third officer, .	"Vestal."
1907	Harry L. Chick, . .	Beverly, . .	Third officer, .	"Justin."
1907	Wm. M. Gifford, . .	Woods Hole, .	Third officer, .	"Cyclops."
1907	Walter L. Smith, . .	Ashburnham, .	Third officer, .	"Prometheus."
1911	Eric E. Winquist, . .	Jamaica Plain, .	Third officer, .	"Abarenda."
1911	Ernest F. Robinson, .	E. Boston, .	Third officer, .	"Hannibal."
1911	Wm. A. Sillars, . . .	Danvers, . .	Third officer, .	"Ajax."
1911	Edw. S. Ells, . . .	Cambridge, .	Third officer, .	"Arethusa."
1900	Jos. E. Gately, . . .	Marlboro', .	Fourth officer, .	"St. Paul."
1911	Henry O. K. Hanson, .	Neponset, .	Mate, . . .	"Paula."
1902	A. Russell Cushing, .	Dorchester, .	Navigating officer.	"Ranger."
1904	Andrew J. Iverson, . .	Salem, . .	Watch officer, .	"Ranger."
1895	Philip W. Lauriat, . .	Medford, . .	1st Lieut., U. S. R. C. S.	"Seneca."
1899	Jas. A. Alger, . . .	Reading, . .	2d Lieut., U. S. R. C. S.	"Seneca."
1900	John F. McGourty, . .	Worcester, . .	2d Lieut., U. S. R. C. S.	"Mohawk."
1906	Wm. F. Towle, . . .	Boston, . .	2d Lieut., U. S. R. C. S.	"Seneca."
1898	F. B. Harwood, . . .	Rockport, . .	3d Lieut., U. S. R. C. S.	"Bear."
1911	Edward C. Roberts, . .	Beverly, . .	1st Lieut., U. S. R. C. S.	"Philippine."
1898	Clarence E. Wood, . .	Fall River, .	Lieut., . . .	U. S. Navy.
1907	Thomas Baxter, . . .	S. Dennis, .	Midshipman, .	"North Dakota."
1898	George F. Waite, . . .	Winthrop, .	Chief inspector of steamboats.	Providence, R. I.
1895	George A. Collie, . .	Worcester, .	Nautical expert, .	Navy department.
1896	Charles S. Young, . .	Boston, . .	Nautical expert, .	Navy department.
1897	Fred'k W. Jones, . .	Winchester, .	Nautical expert, .	Navy department.
1900	Gershom Bradford, . .	Duxbury, . .	Nautical expert, .	Navy department.
1903	Leander A. Clapp, . .	Brockton, . .	2d Lieut., . .	U. S. Marine Corps.
1906	Clarence E. Nutting, .	Cambridge, .	2d Lieut., . .	U. S. Marine Corps.
1895	Charles H. Lincoln, . .	Gloucester, .	Chief engineer, .	"Aztec."
1896	Jas. H. B. Meehan, . .	Lowell, . .	Chief engineer, .	"Vulcan."
1898	Charles E. Rowe, . . .	Lynn, . .	Chief engineer, .	"Nanshan."
1898	John C. Ganser, . . .	Jamaica Plain, .	Chief engineer, .	"Carribean."
1898	Everett S. Ransom, . .	Mattapoisett, .	Chief engineer, .	"Parthenia."
1899	Frank B. Davis, . . .	Dorchester, .	Chief engineer, .	"Olivette."
1899	Forrest D. Clark, . .	Dorchester, .	Chief engineer, .	"Harvard."
1900	Hollis M. Cornwall, . .	Melrose, . .	Chief engineer, .	"Persian."
1900	William Glover, . . .	Wilmington, .	Chief engineer, .	"Iris."
1900	Norris R. Sibley, . . .	Worcester, . .	Chief engineer, .	"Frances Hyde."



Graduated.	NAME.	Residence.	Position.	Vessel.
1900	Charles E. Lowe, . .	Roxbury, . .	Chief engineer, .	"Mackinaw."
1900	Elmer P. Butterworth, .	Foxboro', . .	Chief engineer, .	"J. M. Guffey."
1901	Eugene I. K. Murphy, .	Worcester, . .	Chief engineer, .	Government vessel, Panama Canal.
1902	Daniel F. Butler, . .	North Easton, .	Chief engineer, .	
1895	Michael D. Sullivan, . .	Boston, . . .	First engineer, .	"Enterprise."
1896	Forrest H. McIntyre, . .	Gloucester, . .	First engineer, .	"Daniel Millard."
1897	Augustus T. Holmes, . .	Ipswich, . . .	First engineer, .	"J. M. Guffey."
1898	Frank P. Killion, . . .	Malden, . . .	First engineer, .	"Kanai."
1898	Wilbur S. Lamont, . . .	Leominster, . .	First engineer, .	"Pocomoke."
1900	J. J. Donohoe, . . . .	Cambridge, . .	First engineer, .	"Oregon."
1900	James F. Rawdon, . . .	Worcester, . .	First engineer, .	"Tuscan."
1901	Robert A. Patterson, . .	Brighton, . . .	First engineer, .	"Vulcan."
1904	Charles W. Bumpus, . . .	Wakefield, . .	First engineer, .	"Cape Ann."
1905	Walter C. Lockhart, . .	Wakefield, . .	First engineer, .	"Cæsar."
1895	Fred'k H. Stackpole, . .	Hyde Park, . .	Second engineer, .	"City of Brockton."
1896	James O. Sargent, . . .	Worcester, . .	Second engineer, .	"St. Louis."
1897	Perley W. Kimpton, . . .	Somerville, . .	Second engineer, .	"Shawmut."
1898	Arthur P. Stevens, . . .	Nantucket, . .	Second engineer, .	"Ponce."
1900	Ressie E. Bowser, . . .	N. Abington, . .	Second engineer, .	"Nero."
1900	Earle P. Marshall, . . .	North Easton, .	Second engineer, .	"Uruguay."
1901	Sidney A. Maglathlin, . .	W. Bridgewater, .	Second engineer, .	"Arethusa."
1901	David W. Warren, . . .	Boston, . . . .	Second engineer, .	"Melrose."
1902	Augustus W. Hart, . . .	N. Truro, . . .	Second engineer, .	"Chippewa."
1902	Ernest L. Saunders, . . .	Brockton, . . .	Second engineer, .	"Hector."
1903	Edward A. Mercer, . . .	Cambridge, . .	Second engineer, .	"Prometheus."
1903	James S. McGarry, . . .	Shrewsbury, . .	Second engineer, .	"El Paso."
1904	Cecil L. McIntyre, . . .	Upton, . . . .	Second engineer, .	"Carib."
1905	Thomas W. Chisholm, . .	N. Billerica, . .	Second engineer, .	"Arethusa."
1906	A. C. Caldwell, . . . .	Dorchester, . .	Second engineer, .	"Ajax."
1907	George H. Stickney, . . .	Watertown, . .	Second engineer, .	"Cyclops."
1903	Rudolph Komenda, . . .	Somerville, . .	Third engineer, .	"Hannibal."
1905	Charles F. Tarr, . . . .	Taunton, . . .	Third engineer, .	"Mars."
1906	Bradford N. A. Gladding, .	New Bedford, . .	Third engineer, .	"Massachusetts."
1906	John C. Sheedy, . . . .	Malden, . . . .	Third engineer, .	"Admiral Schley."
1907	Archie E. Bragg, . . . .	Woods Hole, . .	Third engineer, .	"Hannibal."
1907	Joseph R. Wier, . . . .	Saundersville, .	Third engineer, .	"Brutus."
1908	Arthur E. Whiton, . . .	Wakefield, . .	Third engineer, .	"Justin."
1908	George H. Cameron, . . .	Wakefield, . .	Third engineer, .	"Leonidas."
1908	Thomas B. Pellett, . . .	Worcester, . .	Third engineer, .	"Cyclops."

Graduated.	NAME.	Residence.	Position.	Vessel.
1910	Ernest B. Wyatt, . .	Wakefield, .	Third engineer, .	"Vulcan."
1911	Paul R. Smith, . .	Concord, .	Third engineer, .	"Mongolia."
1911	Fred'k M. Coughlin, .	N. Dairmouth, .	Third engineer, .	"Neptune."
1896	Webb C. Maglathlin, .	Bridgewater, .	2d Lieut., Eng., U. S. R. C. S.	"Perry."
1897	Lorenzo C. Farwell, .	Dorchester, .	2d Lieut., Eng., U. S. R. C. S.	"Forward."
1897	Albert F. Patterson, .	Townsend, .	2d Lieut., Eng., U. S. R. C. S.	"Woodbury."
1898	Joseph E. Sheedy, . .	Reading, .	2d Lieut., Eng., U. S. R. C. S.	"Thetis."
1898	John T. Carr, . . .	Malden, .	2d Lieut., Eng., U. S. R. C. S.	"Snahomish."
1906	Henry C. Roach, . .	New Bedford, .	3d Lieut., Eng., U. S. R. C. S.	"Androscoggin."
1896	H. E. Kershaw, . .	Lawrence, .	Warrant machin- ist.	U. S. Navy.
1898	Herbert E. Fish, . .	Mattapoisett, .	Warrant machin- ist.	"New Jersey."
1895	S. B. Gaylord, . .	Boston, .	Machinist, . .	"Newark."
1905	Fred G. Carlton, . .	Maynard, .	Machinist, . .	"New Jersey."
1906	C. Allan Holbrook, . .	Marlboro', .	Machinist, . .	"Idaho."
1900	Howard F. Dow, . .	Lynn, .	Electrician, . .	"Enterprise."
1902	John F. Murphy, . .	Worcester, .	Electrician, . .	"Viper."
1902	William H. O'Connor, .	Roxbury, .	Electrician, . .	"Caesar."
1903	Fred S. Garland, . .	Randolph, .	Electrician, . .	"Alabama."
1903	Guy H. Hudson, . .	Somerville, .	Electrician, . .	"Alabama."
1904	Charles A. Hill, . .	Melrose, .	Electrician, . .	"Bay State."
1904	C. George Dyson, . .	Billerica, .	Electrician, . .	"Georgia."
1904	Joseph G. Whippen, . .	Lynn, .	Electrician, . .	"Rhode Island."
1905	Lawrence G. Kelley, .	Taunton, .	Electrician, . .	"Illinois."
1905	John F. Kinnaly, . .	S. Boston, .	Electrician, . .	"Vermont."
1906	Carroll L. Morgan, . .	Beverly, .	Electrician, . .	"Connecticut."
1906	Louis H. Houghton, . .	Worcester, .	Electrician, . .	"Missouri."
1906	William R. Dolan, . .	Worcester, .	Electrician, . .	"Cleveland."
1907	Eugene E. Chaney, . .	Arlington, .	Electrician, . .	"Tacoma."
1907	Louis L. LaMontagne, .	Millers Falls, .	Electrician, . .	"Pilgrim."
1910	Eugene F. Stephenson, .	Spencer, .	Electrician, . .	"Neptune."
1911	William Bowen, . .	Boston, .	Cadet engineer, .	U. S. Lighthouse Bureau.
1911	Ervin L. Kelley, . .	Cambridge, .	Cadet engineer, .	U. S. Lighthouse Bureau.

## CADETS ADMITTED, GRADUATED, AND HONORABLY DISCHARGED, FROM 1893 TO 1911, INCLUSIVE.

	ADMITTED.			GRADUATED.			HONORABLY DISCHARGED.			Withdrawn, dismissed, dropped, transferred.
	Sea- manship Class.	Engineer Class.	Totals.	Sea- manship Class.	Engineer Class.	Totals.	Sea- manship Class.	Engineer Class.	Totals.	
1893,	138	-	138	-	-	-	29	-	29	24
1894,	42	21	63	-	-	-	26	17	43	18
1895,	33	38	71	10	10	38	6	6	12	6
1896,	35	39	74	20	17	37	16	15	31	17
1897,	32	41	73	20	21	41	10	10	20	9
1898,	42	57	99	15	25	40	12	14	26	23
1899,	34	45	79	11	12	23	24	17	41	11
1900,	28	50	78	14	36	50	9	12	21	14
1901,	34	37	71	11	18	29	8	12	20	16
1902,	32	58	90	10	22	38	16	18	34	13
1903,	34	32	66	17	14	31	10	15	25	17
1904,	-	-	60	16	29	45	5	12	17	31
1905,	-	-	65	10	10	20	-	-	9	13
1906,	-	-	50	16	19	35	-	-	18	10
1907,	-	-	60	10	15	25	-	-	17	26
1908,	-	-	45	8	9	17	-	-	9	9
1909,	-	-	81	14	22	36	-	-	7	16
1910,	-	-	54	6	15	21	-	-	16	15
1911,	-	-	60	20	23	43	-	-	7	18
	-	-	1,380	243	320	569	-	-	402	315

<sup>a</sup> Beginning in 1904, the cadets upon entrance are unclassified until their second year.

## STATISTICS OF CADETS.

*Cadets admitted during the Year 1911.*

Number of cadets in the school Jan. 1, 1911,			99
Seamanship class,	22		
Engineer class,	28		
Nautical cadets,	49		
Total,	99		
Applications received, 1911,		107	
Applicants examined,	97		
Failed to appear for examination,	10		
Examined,		97	
Failed to pass mental examination,	27		
Failed to pass physical examination,	4		
Failed mentally and physically,	7		
Passed examinations,	59		
Passed examinations,	59		
Re-examined mentally and passed,	10		
Re-examined physically and passed,	2		
	71		
Failed to qualify after passing examinations,	2		
	69		
Total number admitted to school during 1911,			69
Total number connected with school during 1911,			168

*Cadets withdrawn during the Year 1911.*

Total number graduated,		43	
Seamanship class,	20		
Engineer class,	23		
Total number honorably discharged,	7		
Total number graduated and honorably discharged,		50	
Dropped from roll,	11		
Withdrawn,	7		
Total number withdrawn and dropped,		18	
Total graduated and withdrawn during 1911,			68
Number of cadets in the school Jan. 1, 1912,			100
Seamanship class,	17		
Engineer class,	18		
Nautical cadets,	65		

## MEMBERSHIP OF THE SCHOOL.

*Graduating Class, April, 1911.*

Aicardi, Angelo A., . . . . .	South Boston.
Bailey, Clifford, . . . . .	Ludlow.
Bartlett, William M., Jr., . . . . .	Nantucket.
Coakley, Patrick S., . . . . .	Malden.
Dexter, Harold S., . . . . .	Mattapoisett.
Downey, Frank L., . . . . .	North Easton.
Ela, Norris T., . . . . .	East Douglas.
Foque, Edwin N., . . . . .	West Medford.
Fulton, David J., . . . . .	Wollaston.
Gorham, William M., . . . . .	Winthrop.
Hanson, Henry O. K., . . . . .	Neponset.
Harrington, Luther E., . . . . .	Winthrop.
Hill, Jerome W., . . . . .	Chicopee.
Holmes, George T., . . . . .	Brockton.
Lockhart, George L., . . . . .	Wakefield.
Lynn, Walter P., . . . . .	Beverly.
Ober, Henry W., . . . . .	Everett.
Phinney, Robert F., . . . . .	Roslindale.
Plummer, Charles C., . . . . .	Cambridge.
Rich, Chester H., . . . . .	Roxbury.
Vose, Raymond C., . . . . .	Cambridge.
Ware, Albert L., Jr., . . . . .	Cambridge.
Whittemore, Roy G., . . . . .	Malden.

*Graduating Class, October, 1911.*

Besse, Wesley F., . . . . .	South Hanson.
Bickerstaff, Charles B., . . . . .	Nantucket.
Blanchard, Walter H., . . . . .	Gloucester.
Chisholm, Joseph C., . . . . .	North Billerica.
Ettinger, Horace G., . . . . .	Allerton.
Fornason, Charles F., . . . . .	Gloucester.
Hubbard, Guy R., . . . . .	Provincetown.
Johnson, George L. E., . . . . .	Worcester.
Lundergan, John P., . . . . .	Brockton.
Macleod, Levi E., . . . . .	Gloucester.
Marques, Alfred, . . . . .	Charlestown.
McArdle, Arthur, . . . . .	Sandwich.
Miller, Eugene W., . . . . .	East Saugus.
Routledge, Richard J., . . . . .	Waverley.
Russo, John A., . . . . .	Roxbury.
Shaw, Frederick J., . . . . .	Cambridge.
Shaw, Lloyd S., . . . . .	Hull.



Simpson, William O.,	.	.	.	.	.	Nantucket.
Thorndike, Harvey M.,	.	.	.	.	.	Swampscott.
White, Samuel D.,	.	.	.	.	.	Hyannisport.

*Class to graduate, April, 1912.*

Acorn, Albert H., Jr.,	.	.	.	.	.	Quincy.
Birdsall, John A.,	.	.	:	.	.	Melrose.
Brewster, Walter L.,	.	.	.	.	.	Somerville.
Cavanaugh, Richard J.,	.	.	.	.	.	New Bedford.
Ertel, Harold L.,	.	.	.	.	.	Longmeadow.
Fawcett, James D.,	.	.	.	.	.	Dorchester.
Horton, Chester A.,	.	.	.	.	.	Somerville.
Howard, Clarence L.,	.	.	.	.	.	Boston.
Leavitt, Harold S.,	.	.	.	.	.	Stoughton.
Moore, Edward A., Jr.,	.	.	.	.	.	Forest Hills.
Morse, Chester L.,	.	.	.	.	.	Franklin.
O'Connell, Richard K.,	.	.	.	.	.	North Easton.
O'Donoghue, William H.,	.	.	.	.	.	Roxbury.
Perkins, Alexander G., Jr.,	.	.	.	.	.	Newburyport.
Preston, Frank M.,	.	.	.	.	.	Byfield.
Thompson, John W.,	.	.	.	.	.	Marion.
Vlass, Roy L.,	.	.	.	.	.	Marlborough.
Winslow, Harold S.,	.	.	.	.	.	Canton.

*Class to graduate, October, 1912.*

Bickerstaff, Richard C.,	.	.	.	.	.	Nantucket.
Buckley, Daniel G.,	.	.	.	.	.	Gloucester.
Burns, Herbert A.,	.	.	.	.	.	New Bedford.
Cahoon, Kenneth E.,	.	.	.	.	.	West Tisbury.
Crocker, John W.,	.	.	.	.	.	Nahant.
Culley, Albert W.,	.	.	.	.	.	Fitchburg.
Daniel, Joseph M.,	.	.	.	.	.	Osterville.
Davison, George R.,	.	.	.	.	.	Springfield.
Eastman, Russell A.,	.	.	.	.	.	West Dennis.
Folger, Ellenwood,	.	.	.	.	.	Siasconset.
Gray, Robert M.,	.	.	.	.	.	Melrose Highlands.
Hamilton, William A.,	.	.	.	.	.	Cliftondale.
Marks, John M.,	.	.	.	.	.	Gloucester.
McGowan, Francis J.,	.	.	.	.	.	Somerville.
Merrill, Norman E.,	.	.	.	.	.	Walpole.
Merithew, Ralph E.,	.	.	.	.	.	Haverhill.
Racicot, Louis H.,	.	.	.	.	.	Lowell.
Smith, Ralph N.,	.	.	.	.	.	Worcester.
Sylvaro, Joseph B.,	.	.	.	.	.	Nantucket.

*Class to graduate, April, 1913.*

Balboni, Charles J., . . . . .	New Bedford.
Beaudry, Raymond H., . . . . .	Springfield.
Burt, Arthur G., . . . . .	New Bedford.
Chase, Walter H., . . . . .	Plainville.
Code, Ralph J., . . . . .	Randolph.
Cropley, George R., . . . . .	Lynn.
Curtis, John C., . . . . .	Dorchester.
Deneen, Joseph D., . . . . .	New Bedford.
Fanning, Philip J., . . . . .	Needham.
Fawcett, Joseph, . . . . .	Dorchester.
Fletcher, Waldo A., . . . . .	Allston.
Fogarty, Edward J., . . . . .	East Boston.
Goldthwait, Rutledge S., . . . . .	New Bedford.
Hathaway, Albert G., . . . . .	East Mattapoisett.
Hilles, Vernon S., . . . . .	Melrose Highlands.
Hipson, Athelston Y., . . . . .	East Boston.
Hodges, Alden L., . . . . .	Boston.
Howland, Frederick L., . . . . .	South Dartmouth.
Hughes, Alfred E., . . . . .	Canton.
Johnson, Albert W., . . . . .	Cambridge.
Laskey, Arnold A., . . . . .	Cambridge.
MacCabe, James A., . . . . .	Osterville.
Maddock, John A., . . . . .	Newburyport.
Peterson, Nils J., . . . . .	Brockton.
Phillips, Paul H., . . . . .	Huntington.
Rice, Paul S., . . . . .	Newton Centre.
Seuss, George W., . . . . .	Marlborough.
Sullivan, George, . . . . .	New Bedford.
Tuell, Borden A., . . . . .	New Bedford.
Waldron, Philip H., . . . . .	Westborough.
Webster, Louis F., . . . . .	Cambridge.
Wells, Alfred J., Jr., . . . . .	Norwood.
White, Richard H., . . . . .	Cambridge.

*Class to graduate, October, 1913.*

Andrews, Firth B., . . . . .	Melrose.
Azevedo, Joseph F., . . . . .	North Dartmouth.
Bowman, James L., . . . . .	Central Village.
Buckley, William A., . . . . .	Winthrop.
Cole, John C., . . . . .	Roxbury.
Crowley, Richard J., . . . . .	Brockton.
Dearborn, Ralph W., . . . . .	Mansfield.
Earle, Milton E., . . . . .	Fall River.

Hayden, Sherman D.,	.	.	.	.	.	Quincy.
Houston, John F., Jr.,	.	.	.	.	.	Jamaica Plain.
Lewis, Earle A.,	.	.	.	.	.	Woods Hole.
Martin, Charles A.,	.	.	.	.	.	Lawrence.
McIntire, Waldon A.,	.	.	.	.	.	East Gloucester.
McLay, Russell A.,	.	.	.	.	.	Lawrence.
Morrow, Robert, Jr.,	.	.	.	.	.	Lowell.
Nelson, Frank H.,	.	.	.	.	.	Fall River.
Newell, Edward D.,	.	.	.	.	.	Gloucester.
Nichols, Gregory B.,	.	.	.	.	.	Danvers.
O'Connell, Thomas A.,	.	.	.	.	.	Roxbury.
Peterson, Carl M.,	.	.	.	.	.	East Gloucester.
Senior, Wilfred H.,	.	.	.	.	.	Boston.
Shattuck, Oliver P.,	.	.	.	.	.	West Acton.
Stainforth, Frederick A.,	.	.	.	.	.	Winthrop.
Swinson, Everett O.,	.	.	.	.	.	East Gloucester.
Trowbridge, Joseph C., Jr.,	.	.	.	.	.	Stoughton.
Taggart, Elmer D.,	.	.	.	.	.	Wakefield.
Wermuth, Eugene F.,	.	.	.	.	.	Boston.
Whitehead, Warren M.,	.	.	.	.	.	Reading.
Wilde, Phillips B.,	.	.	.	.	.	Woods Hole.

## APPROPRIATIONS.

The appropriations for the school for the fiscal year 1911, from Dec. 1, 1910, to Nov. 30, 1911, are here accounted for as follows: —

*Current Expenses.*

Appropriation, . . . . .	\$60,000 00
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## Expended: —

Pay roll, . . . . .	\$29,387 10
Provisions, . . . . .	14,316 36
Text-books, stationery and printing, . . . . .	427 19
Seamanship department, . . . . .	2,926 84
Engineering department, . . . . .	7,251 02
Repairs, . . . . .	2,440 09
Miscellaneous, . . . . .	3,244 83
Total amount expended, . . . . .	<hr/> 59,993 43

Balance unexpended, . . . . .	\$6 57
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*Office Expenses.*

Appropriation, . . . . .	\$5,000 00
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## Expended: —

Salaries, . . . . .	\$2,889 00
Advertising, . . . . .	812 41
Printing, . . . . .	240 10
Commissioners' expenses, . . . . .	249 90
Stationery and postage, . . . . .	376 05
Miscellaneous, . . . . .	430 01
Total amount expended, . . . . .	<hr/> 4,997 47

Balance unexpended, . . . . .	\$2 53
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Respectfully submitted,

JOHN F. MERRY,

REAR ADMIRAL, U. S. N. (RETIRED).

HON. JOHN READ, LATE U. S. N.

WILLIAM E. MCKAY.

## FEDERAL AND STATE LEGISLATION.

## AUTHORITY OF THE UNITED STATES.

H. R. 24145. APPROVED MARCH 4, 1911.

AN ACT FOR THE ESTABLISHMENT OF MARINE SCHOOLS, AND FOR  
OTHER PURPOSES.

That the Secretary of the Navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of a State, a suitable vessel of the navy, with all her apparel, charts, books, and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school, or school or college having a nautical branch, established at each of the following ports of the United States: Boston, Philadelphia, New York, Seattle, San Francisco, Baltimore, Detroit, Saginaw, Michigan, Norfolk, and Corpus Christi, upon the condition that there shall be maintained at such port a school or branch of a school for the instruction of youths in navigation, steamship-marine engineering, and all matters pertaining to the proper construction, equipment, and sailing of vessels or any particular branch thereof.

SECTION 2. That a sum not exceeding the amount annually appropriated by any State or municipality for the purpose of maintaining such a marine school or schools or the nautical branch thereof is hereby authorized to be appropriated for the purpose of aiding in the maintenance and support of such school or schools: *provided, however*, that appropriations shall be made for one school in any port heretofore named in section one and that the appropriation for any one year shall not exceed twenty-five thousand dollars for any one school.

SECTION 3. That the President of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require, such vessel shall be immediately restored to the Secretary of the Navy and the officers so detailed recalled: *and*



*provided further*, that no person shall be sentenced to or received at such schools as a punishment or commutation of punishment for crime.

SECTION 4. That all laws and parts of laws in conflict herewith are hereby repealed.

## AUTHORITY OF THE STATE OF MASSACHUSETTS.

CHAPTER 45, REVISED LAWS, AS AMENDED BY CHAPTER 171, ACTS OF 1903.

### THE NAUTICAL TRAINING SCHOOL.

SECTION 1. There shall be a board of commissioners of the Massachusetts nautical training school consisting of three citizens of the commonwealth, one of whom shall annually, before the first day of July, be appointed by the governor, with the advice and consent of the council, for a term of three years from said first day of July.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed by the commonwealth for all expenses actually incurred by them in the performance of their official duties.

SECTION 3. They shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation, shall provide accommodations for the school on board a proper vessel, purchase and provide books, stationery, apparatus and supplies needed in the work of the school, appoint and remove instructors and other necessary employees, determine their number and compensation, fix the terms and conditions upon which pupils shall be received and instructed in the school and be discharged or dismissed therefrom, establish all regulations necessary for its proper management and shall from time to time provide for cruises in or from the harbor of Boston.

SECTION 4. They may receive from the United States government, and use for the accommodation of the school, such vessels as the secretary of the navy may detail.

SECTION 5. They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars,

with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers within thirty days after the termination of said cruises.

SECTION 6. They shall annually, in January, report to the general court a detailed statement of all moneys appropriated and expended during the preceding year for the nautical training school, stating the results of the work during such year and making any necessary recommendations.









